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GRADUATE SCHOOL

Thesis

HEALTH EDUCATION
for
CONTINUATION SCHOOL GIRLS
in
HOME-MAKING CLASSES

Submitted by

Mary Ellen V. Shea


(B.S. in Ed., Boston University, 1924)

In partial fulfilment of requirements for
the degree of Master of Arts

1933

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INTRODUCTION

So much has been written in recent years on health teaching, particularly as it applies to the first six grades, that it has been said, "The question is no longer health education in the curriculum, but the curriculum in health education." In this thesis the writer does not wish to go the full distance that the quotation suggests but hopes that the results of this study will make possible better health teaching for continuation school girls in home making classes.

When part-time education became effective for employed youth, there were few precedents to follow for the organization of classes or courses of study. The local character of each school group in the different communities and the industries pursued by the students necessitated unique treatment in a school program. As a result the making of a curriculum was left largely to the ingenuity of the individual teachers.

The writer outlines a program in health education based on a study of the needs, interests, and capacities of the continuation school girls with whom the writer has worked, and in terms of the latest recommendations compiled by the Committee on the School Child at the White House Conference on Child Health and Welfare. The first chapter is devoted to a discussion of the importance of education today, its scope, definition, and objectives. To furnish a background for a better understanding of the particular problem, a chapter is offered on the continuation school, giving its objectives, organization, and shortages relative to the curriculum. Then

INTRODUCTION

So much has been written in recent years on health education, particularly as it applies to the physical fitness of the individual, that it has become a cliché to say that the question is no longer health education in the narrow sense, but the question is health education. In this sense, the writer does not wish to go too far in assuming that the question is no longer health education, but the question is health education. The writer does not wish to go too far in assuming that the question is no longer health education, but the question is health education. The writer does not wish to go too far in assuming that the question is no longer health education, but the question is health education.

The writer outlines a program in health education based on the study of the individual, the study of the community, and the study of the nation. The writer outlines a program in health education based on the study of the individual, the study of the community, and the study of the nation. The writer outlines a program in health education based on the study of the individual, the study of the community, and the study of the nation. The writer outlines a program in health education based on the study of the individual, the study of the community, and the study of the nation. The writer outlines a program in health education based on the study of the individual, the study of the community, and the study of the nation.

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follows a chapter devoted to a consideration of the interests, capacities, and environmental factors which influence health teaching for these pupils. A detailed study of the health needs of a specific group for which the health education program is intended is then given and interpreted. This chapter contains surveys showing the physical condition of the children, their health habits, and some surveys of the types of work and health conditions in the home and shop. Then follows a chapter on the content of the course of study in terms of aims, subject-matter preparations, and methods, based on the findings of the group studied. An outline of a course of 40 lessons is then presented in the succeeding chapters; 20 of these lessons on personal health have been worked out in detail with the other 20 lessons on community hygiene in outline form for correlation with community civics. In the last section the White House Conference report of the Committee on the School Child is used as a criterion of judging the effectiveness of the work planned.

The only study of a similar nature, known to the writer, that has been attempted for a school of about the same size as the one in which the writer is interested is entitled "Health Promotion in a Continuation School" by Harriet Wedgwood, Dept. of the Interior, 1924. This work gives a description of health activities in a home nursing, vocational class in Fall River, Massachusetts. The present study and course have been organized differently, that is, from the standpoint of the teacher of academic subjects.

The new Cleveland Outline for the teaching of Science Including Health, published by the Board of Education, Cleveland, Ohio, has been used for its suggestive material in the lesson outlines.

Following a chapter devoted to a consideration of the interests, habits, and environmental factors which influence health conditions for these pupils. A detailed study of the health needs of a specific group for which the health education program is intended is then given and interpreted. This chapter contains surveys showing the physical condition of the children, their health habits, and some surveys of the types of work and health conditions in the home and school. Then follows a chapter on the condition of the community of study in terms of aims, subject-matter, responsibilities, and methods, based on the findings of the group studied. In dealing with a course of instruction is then presented in the succeeding chapters; 30 of these chapters on physical health have been worked out in detail after the 10 or 20 lessons on personality hygiene in outline form for presentation after community study. In the last section of the book is the Conference report of the Committee on the School Guide, used as a criterion of judging the effectiveness of the work plan.

The only study of a kind of health, known to the writer, that has been attempted for a school of about 1000 pupils as the one in which the writer is interested is entitled "Health Education in a 'Continuation School' by Robert H. Hargrave, Ed., of the Interior, 1932. This work gives a description of health activities in a vocational class in Fall River, Massachusetts. The present study and course have been organized differently, and is from the standpoint of the teacher of academic subjects.

The new Cleveland Guide for the Teaching of Science including Health, published by the Board of Education, Cleveland, Ohio, has been used for the suggestive material in the lesson outlines.

Because no text books are used in the continuation school, the writer has placed in the appendix several lists of reference and illustrative material from federal, state or commercial sources, and suggestive charts and graphs for the development of the lessons, planned and outlined in Chapter VI. The appendix also contains samples of all the tests and questionnaires used in the study, copies of lesson outlines in health teaching from New York and Boston, and an abstract of the Massachusetts report of the Committee on the School Child of the White House Conference on Child Health and Welfare.

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 illustrative material from Federal, State or commercial sources,
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 a list of all the facts and generalizations used in the study, together
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 an abstract of the Massachusetts report of the Committee on the
 School Child of the White House Conference on Child Health and Welfare.

CHAPTER 1.

HEALTH EDUCATION-A PREVIEW

NEED FOR HEALTH EDUCATION

When 30,000 men and women, leaders in the field of medical, public, social, and educational aspects of child health, assembled in the nation's capital in November, 1930, for the White House Conference on Child Health and Welfare, they gave evidence of the scope and importance of the problems on child health which face our country to-day. National interest has been increasing steadily since the first conference of this kind in 1909, and the second in 1919; and with that interest has come an ever broadening conception of health education. The first meeting under the leadership of Theodore Roosevelt was called for the purpose of helping the dependent child; and the second, ten years later, under the guidance of Woodrow Wilson, was chiefly interested in the economic and social basis for child welfare work, child labor, and the health of children and mothers.¹ The third and recent conference, called by Herbert Hoover, proposed to assemble all the available significant information pertaining to child health and welfare, to organize it properly, and to agree on the minimum requirements essential for a modern program in child health and welfare. This conference was the broadest of all because it included in its discussion not only the dependent child and the child in need of protection but likewise all children and the social and environmental factors that influence child life.

1.

The Commonwealth. Volume 18. No. 4. 1931. Massachusetts Department of Public Health. p. 200.

CHAPTER I
HEALTH EDUCATION - A REVIEW

HEALTH EDUCATION

When 20,000 men and women, leaders in the field of medical, public, social, and educational agencies at child health, assembled in the nation's capital in November, 1930, for the White House Conference on Child Health and Welfare, they gave evidence of the scope and importance of the problems on child health which face our country to-day. National interest has been increasing steadily since the first conference of this kind in 1903, and has passed in 1930, and with that interest has come an ever broadening recognition of health education. The first meeting under the leadership of Theodore Roosevelt was called for the purpose of helping the dependent child; and the second, two years later, under the leadership of Woodrow Wilson, was chiefly interested in the economic and social basis for child welfare work, child labor, and the health of children and mothers. The third and recent conference, called by Herbert Hoover, proposed to assemble all the available statistical information pertaining to child health and welfare, to organize it properly, and to agree on the standard terminology essential for a modern program in child health and welfare. This conference was the forerunner of all because it included in its discussion not only the dependent child and the child in need of protection but likewise all children and the social and economic mental factors that influence child life.

There is very little question of the importance of health when we think of the factors in the environment of to-day which influence the average city child. Our civilization has created highly congested areas of population which bring about conditions favorable to the spread of communicable disease and delinquency. The tendency of people during the last half century has been away from agrarian pursuits and towards industrial life in towns, thus depriving childhood of longer periods of play and work in the open air and sunshine. We have witnessed in the present economic crisis a considerable number of the industrial population either very close to malnourishment or starving. Such a condition can not help but produce cheerless homes and unhappy children. Family life itself has been influenced by modern social conditions, the results of which place a greater burden of responsibility in guidance upon agencies outside the home. Added to this has been child labor with its deprivation of normal out-of-door activities and the restriction of educational life. Toward the amelioration of these conditions the school is expected to do its part. One way lies through a sound health education program which will promote the building of physically strong and mentally balanced children who will be prepared to withstand the pressure of modern life.

Leaders in child health had realized that with the advance of science had come a vast amount of scientific knowledge, valuable to the self-preservation of the individual and of the community, which could be put to use if properly organized and definitely recommended. The committee on the School Child of the Third White House Conference on Child Health and Welfare em-

bodied this thought in its report of the "Minimum Essentials in a School Health Program."

Definition of Health Education

This report gives no definition of the term health education; but if we are to learn the exact contribution which our public schools can make to the preservation and improvement of the national health, it is necessary for us to have in mind as nearly as possible what is meant by health education in the schools. Dr. Thomas D. Wood, Chairman of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, and also Chairman of the Committee on the School Child, at the recent conference, reported in "Health Education" of 1924 that "health education can be promoted only by emphasizing all aspects of health, physical, mental, emotional, social, and moral. The teacher of health should look for normal development of the child from all of these points of view. The ideal of health is not mere freedom from obvious and pathological symptoms. It is the realization of the highest physical, mental, and spiritual possibilities of the individual."¹

Marion O. Lerrigo and Dr. Wood in writing "Health Behavior", in 1928, state, "Health Education is the sum of experiences in school and elsewhere which favorably influence habits, attitudes, and knowledge relating to individual, community, and racial health."²

¹ Wood, Thomas D., Chairman Joint Committee on Health Problems in Education of the National Educational Association and the American Medical Association. 1924. p. 23.

² Wood, Thomas D., Lerrigo, Marion O., Health Behavior Introduction. 1928.

The authors attempt further to clarify the meaning of health education for the average teacher by suggesting that the child's development in health education be considered from two angles, the healthy organism, and the healthy personality. The authors interpret these terms as follows:

"The Healthy Organism: Physiologic Health¹

"Physical health implies the well-being of each cell and organ, and their harmonious cooperation. Tests of this are:

1. Proper growth in height, weight, structural and functional development. This includes more than mere freedom from malformation, abnormal growth or structural defects.

2. Full efficiency of functions: muscular, nervous, mental, emotional, glandular, nutritive, circulatory, respiratory, excretory, and reproductive. This means that there is a feeling of abundant energy for all the ordinary activities of life, and some reserve for unusual strains.

It may require a careful physical examination to discover in detail the condition of the child on all the points mentioned above. But there are certain simple evidences of bodily health which any one may easily observe.

1. The healthy child is largely unconscious of his body. He has a general sense of well-being, a feeling of muscular power and of pleasure in movement. He is not conscious of the vital organs. When a child is in pain, or in ill health, on the other hand, he becomes conscious of parts of his body, which so far as he knew before might have been non-existent.

2. He possesses sufficient vigor so that a reasonable amount of work and play is more stimulating than fatiguing.

3. His appetite is steady, wholesome and not capricious.

4. His weight does not vary widely from the standard weight for his age and height.

5. He sleeps well, and during the normal regular hours of sleep, he recovers satisfactorily from fatigue.

6. He is able to adapt himself to new conditions of environment, climate, or modes of life without undue physiologic disturbances.

"The Healthy Personality; Mental, Emotional, Moral, and Social Health

"To picture the healthy mental, emotional, moral and social qualities of the child is to describe the healthy personality. In describing the characteristics of a healthy personality, it is desirable to allow for a variety and

1

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- His appetite is steady, wholesome and not capricious.
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 vironment, climate, or modes of life without undue physi-
 cal disturbances.

"The Healthy Personality: Mental, Emotional, Moral, and Social Health"

"To discuss the healthy mental, emotional, moral and
 social qualities of the child is to describe the healthy
 personality. In describing the characteristics of a healthy
 personality, it is desirable to allow for a variety and

range of individual differences. To be well balanced it is not necessary to suppress one's individual qualities, or to conform to a uniform pattern. It is nevertheless useful, keeping this in mind, to describe the simplest and most significant evidences of a healthy personality. They are as follows:

1. The child possesses intelligence adequate to meet the demands of his life. This includes the whole range of intelligence from very superior to somewhat below the average. Some very healthy personalities are found among those whose intelligence is inferior to the average, but is nevertheless sufficient to meet the demands of their simple lives of manual work.
2. He is able to concentrate his attention upon the matter before him, and to perceive the important elements of the situation with accuracy and alertness.
3. He is interested in the world about him, and curious to understand it.
4. He is generally self-confident; he expects success and achieves it with reasonable frequency.
5. He is active in overcoming difficulties; he does not "day dream" so much that he fails to meet the actual situation.
6. His predominating emotional qualities are happiness, cheerfulness, courageousness. He is not troubled by unnecessary fears, shyness, or timidity. His emotional responses are those that are appropriate and useful for the occasion.
7. He does not ordinarily brood or sulk, or indulge in morbid introspection.
8. He has many objective interests; friends, hobbies, games in which he finds adequate self-expression.
9. He is companionable and mingles easily with other children. He adapts himself easily to co-operative enterprises; to leadership or followership.
10. The Child's relationships with children of the opposite sex are wholesome.
11. He has a sense of responsibility for the happiness and well-being of his friends, school mates and members of his family."

Thus we see a broadened horizon for the teacher who plans a school health program, for his concern reaches beyond that of the physical aspects of health, and includes the health of the "whole child", both in school as a member of his group, and outside of school as a member of other social groups which influence his general well-being.

Aims

To guide a teacher in the selection, arrangement and elimination of subject matter, and in the indication of methods of instruction in the class-room, the following aims were compiled by the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association:¹

range of individual differences. To be well balanced is
is not necessary to possess any individual qualities,
or to conform to a certain pattern. It is nevertheless
usually, bearing this in mind, to develop the student and
must significant evidence of a healthy personality. They
are as follows:

1. The child possesses individual differences adequate to meet the
demands of his life. This includes the whole range of in-
tellectual, from very superior to somewhat below the aver-
age. Some very high intelligence are found among those
whose intelligence is inferior to the average, but in aver-
age children sufficient to meet the demands of their lives
of normal work.
2. He is able to concentrate his attention upon the matter
before him, and to receive the important elements of the
information with accuracy and alertness.
3. He is interested in the world about him, and curious to
understand it.
4. He is generally self-confident; he expects success and
achieves it with reasonable frequency.
5. He is capable of overcoming difficulties; he does not
"give up" so much that he fails to meet the actual situa-
tion.
6. His predominant emotional qualities are happiness,
optimism, contentment. He is not troubled by un-
easy fears, doubts, or timidity. His emotional responses
are those that are appropriate and useful for the occasion.
7. He does not unduly brood or sulk, or indulge in
world dissatisfaction.
8. He has many objective interests; friends, hobbies,
games in which he finds adequate self-expression.
9. He is compassionate and mingles easily with other chil-
dren. He accepts himself as a co-operative collaborator;
to leadership or following.
10. The child's relationship with children of the opposite
sex are wholesome.
11. He has a sense of responsibility for the happiness and
well-being of his friends, school mates and members of his
family.
12. He has a broadened horizon for the teacher who
gives a school health program, for his common sense be-
lieves that of the physical aspects of health, and includes
the health of the "whole child," both in school as a member
of his group, and outside of school as a member of other
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Aims

To guide a teacher in the selection, arrangement and
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were compiled by the Joint Committee on Health Problems in
Education of the National Education Association and the
American Medical Association:

Report of Joint Committee on Health Problems in Edu-
cation of the National Education Association and the Ameri-
can Medical Association, 1924, p. 1.

Aims

1. "To instruct children and youth so that they may conserve and improve their own health.

2. To establish in them the habits and principles of living which throughout their school life, and in later years, will assure that abundant vigor and vitality which provide the basis for the greatest possible happiness and service in personal, family, and community life.

3. To influence parents and other adults, through the health education program for children, to better habits and attitudes, so that the school may become an effective agency for the promotion of the social aspects of health education in the family and community as well as in the school itself.

4. To improve the individual and community life of the future; to insure a better second generation, and a still better third generation; a healthier and fitter nation and race."¹

Summary

The third White House Conference on Child Health and Welfare was called to study problems in health education for children, and to make recommendations accordingly.

The increased tendency towards industrial life in towns to-day places increased responsibilities on the school to direct the conservation of the physical and mental resources of the child.

The committee on the School Child of the White House Conference on Child Health and Welfare attempted to solve some of these problems in the teaching of health to school children by recommending for school administrators and teachers the minimum requirements essential for a school health program.

Health education to-day emphasizes all aspects of health,

physical, mental, emotional, social, and moral. It is "the sum of experience in school and out which favorably influences habits, attitudes, and knowledge relating to individual, community, and racial health."¹

The aims of health education in the schools are:

1. To instruct children so that they may conserve and improve their own health
2. To establish in them habits and principles of living which will assure that vigor and vitality which provides for the greatest happiness in personal and community life.
3. To influence parents and other adults through the health education program for children to better habits and attitudes.
4. To improve the individual and community life of the futures.²

1

Report of Joint Committee on Health Problems in Education of the National Educational Association and the American Medical Association. 1924. p. 23.

2

Adapted from the aims given in Report of Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association. 1924. p. 1.

CHAPTER 11

THE CONTINUATION SCHOOL

Before attempting to present a plan for a course of study for continuation school students, it would be well to have in mind the organization, objectives, curriculum and any shortages relative to the curriculum which characterize this school as different from the average secondary school.

Organization

The continuation school grew out of the beliefs of a number of interested persons that more education should be given to all youth; and that for some of them who have not an interest in school life, education on the part-time basis would be most effective.

In September, 1920, it became compulsory for every town or city, in Massachusetts, having within a calendar year 200 different children between the ages of 14 and 16 employed for at least 6 hours a week, to establish continuation schools. The boys and girls between the ages of 14 and 16 who are employed in such towns have to attend the continuation school for 4 hours a week when employed, and 20 hours a week when temporarily out of employment.

In small schools the classes are composed of students of various grade levels, usually 7-10 inclusive, with the majority of students of seventh grade standing. Pupils may enter at any time during the year. The "school expectancy" time during which these pupils will stay varies from one month to two years. The average is one year. These conditions make it necessary for a

teacher to plan his work in unit lessons, that is, to have the subject matter, for that one day a week on which a child attends, correlated about one important topic so that a unified presentation results. Unit courses, which embody a series of unit assignments, are used to advantage by some teachers. Because of the different entrance dates, it is the exception rather than the rule to have the members of a class finish a series of lessons started together. The various grade levels of the members of a class make instruction on an individual basis a necessity.

Objectives

The following statements represent the purposes for which these schools were organized:¹

1. "The major objective of the continuation school is to help employed youth to make immediate and prospective adjustments (social, civic, or economic) form their status as full-time school pupils to that of responsible wage earning citizens."

There are four minor objectives:

1. "To continue general education.
2. To help these minors to get the most out of their immediate employment; to minimize their aimless changing in industry; to save them time lost through unemployment.
3. To help these minors to make more intelligent choice of occupations; to advance them from unskilled to skilled trades.
4. To establish cooperative relations between the schools and the employers of these minors."

The Curriculum

To carry out the objectives of the continuation school and to meet the requirements of the law, the curriculum has

¹

Abstract of Conference for Teachers of Continuation School for Girls. Fitchburg Normal School. 1925. p. 911.

been organized so that two hours per day are devoted to some vocational subject and two hours to related subject matter which will increase the vocational intelligence of the young worker as well as advance him in general education. The emphasis is placed on the vocational aspect of his education; the students are grouped according to various provisions in the curriculum, which are usually clothing, foods, home nursing, and commercial work for the girls, together with wood-working, machine-shop, printing, and commercial work for the boys. If the student has his vocational lesson during the first half of the four hour session, he has related work in an academic class during the second two hours, or vice versa. In some organizations the pupil has the same teacher for both divisions of the work; this arrangement has the advantage of simplifying the matter of related work. In other schools, classes are organized separately for vocational and academic work; this plan gives the pupils the advantage of teachers who have had special training in the academic or vocational field, as most teachers do not train for both branches of education. When the work is divided between two teachers, the academic teacher is expected to relate his instruction to the work being carried on in the vocational department. This usually includes related instruction in arithmetic, English, hygiene, and civics.¹ It is believed that by correlating the work about the vocational interests that the instruction given for that one day during the week on which the student comes will be more unified and will help to increase

¹

See appendix p. 1. for sample job sheet.

his knowledge of the occupation.

Curriculum Shortages.

A continuation school teacher in a small organization is usually certain about his general objectives and method but not about the subject matter of instruction. It is part of his job to determine what his subject matter will be. Each teacher as a rule compiles his own courses of study on the basis of the general objectives of the continuation school, and the related activities pursued in the vocational classes. This attempt to relate subject matter on the part of the academic teacher may result in the overlapping of material presented in both classes or in the academic teacher presenting material not of intrinsic worth. To obviate such conditions the teacher is faced with the responsibility of determining the individual needs of his students, as well as their interests and capacities if he wishes to present the subject matter of most value to them during the short periods which they attend.

Follow-up Work

One of the unique features of the continuation school is the follow-up work. It is part of the teacher's duty each week to spend from four to eight hours visiting the homes and places of employment of his pupils and to make out a case record for each. His peculiar privileges in this respect give him an advantage over the regular school teacher, particularly from the health education standpoint. On home visits the teacher sometimes finds himself working in the capacity of school nurse, social worker, or truant officer. When the teacher visits the shop, it is his privilege to observe the child on the job and

to determine whether the activity pursued is detrimental to the child's health, whether the boy or girl is standing too many hours, or whether industrial hazards are present. It is part of his business, also, to find out in what way the school may serve the employer and consequently advance the child.

The Teacher

The success of the part-time school depends to some extent upon the teacher. His interests must be in the individual. This must never be forgotten in a desire to perpetuate school traditions, or to teach a set lesson. He must believe in the school, its aims, and its opportunities for young employed minors, and he must have faith in youth. Before his pupils or others can be brought to believe that a half day week spent with the pupils is worth more to them than the wages they have lost. He must go out into industry or into the homes in search of the educational material so that the pupils will understand it themselves and realize its value. It is part of his responsibility to develop appreciations of hygienic living, good character, and intellectual development so that the student may feel that these considerations are just as important to them as their trade training.

The Summary

The continuation school was established in Massachusetts in 1920 for all employed youth between the ages of 14 and 16. It provides instruction on a four hour a week basis for such children when working and 20 hours when not working.

Two hours are devoted to vocational training supplemented by two hours of related academic work in arithmetic, English, hygiene, and civics. The work is planned in unit assignments or unit courses because of the different entrance dates and grade

levels. Instruction is usually on an individual basis.

The characteristics of the organization in small schools preclude standard courses of study. Each teacher compiles his own outlines on the basis of the general objectives of the continuation school and the vocational choices of his students.

These objectives are:

Major- "To help pupils make social, civic, or economic adjustments from their status as full time students to that of responsible wage earning citizens.

- Minor-
1. To continue general education.
 2. To get the most out of immediate employment.---
 3. To help minors make intelligent choice of occupation.---
 4. To establish cooperative relations between the schools and the employers of these minors.¹

The teacher's follow-up work in the home and shop, and his capacity as vocational counsellor give him unique opportunities to determine the individual needs of his students, their interests and capacities.

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Adapted from Abstract of Conference for Teachers of Continuation Schools for Girls. Fitchburg Normal School. 1925. p. 911.

CHAPTER 111.

INTERESTS, CAPACITIES AND ENVIRONMENTAL FACTORS
WHICH INFLUENCE HEALTH TEACHING
FOR THE CONTINUATION SCHOOL GIRL

Success in a health education program depends to some extent upon the teacher's knowledge of the age interests of the students, their physical and mental capacities, and any environmental conditions which may affect their health and personalities. These contributory factors to good teaching will be discussed and interpreted in this chapter from the standpoint of their importance in a health education program.

Interests

The observations which follow result from the writer's teaching experiences with continuation school girls over a period of five years.

The adolescent girl who comes to the part-time school is entering upon a new stage of her life. A new sense of her power is awakening, exhibited often by an attempt to throw off the traditional control of home and school.¹ As a rule this girl has left school because she could not adjust herself to the conditions she found there, or she desired to go to work so that she might acquire a more elaborate wardrobe. To this girl who is interested in money-making, school work, as she

¹"Recent studies in Massachusetts indicated that a relatively small percent of continuation pupils drop out of full time school because of economic need. Of 263 cases studied 6 percent left school because of economic conditions; 4 percent left for disciplinary reasons; 40 percent left for a desire to work and 50 percent left because of the inability to do the work required in the regular school." Hopkins, L.T. The Intelligence of Continuation School in Massachusetts. Harvard Studies in Education. Vol. 5. Harvard University Press. 1924

knew it, seemed to be a positive loss of time. We find, also, in this school the girl who has a strong interest in home making. Often this girl is a member of a large family, who has left school to help her mother in the home or to work in the homes of other people. Again, we find the girl with conflicting interests who has a desire for independence and power on the one hand, and a love of service and self-sacrifice on the other. It behooves the teacher, therefore, to make sure that whatever material is presented seems worth while to the girls. Some values in the kind of health education given should be felt by the girl who has no interest in home making. Such values are a knowledge of three balanced meals a day, diets for the fat, the thin, and the anemic, a course in personal hygiene, etiquette, and social relations, ways of entertaining in the home, and care of her own room. Home girls with family responsibilities could receive a true home making course with emphasis on balanced meals, household budgets, child care, special cookery for little children and invalids, lessons on home sanitation, home care, and interior decorating. The girl with conflicting interests would enjoy work in personal hygiene, home decoration, home nursing, first aid, and child care. A study of the family and its relationships as a civics correlation would give this type of girl an opportunity to express herself on the why's of behavior as a member of the family group.

A common characteristic of most of these girls is the interest in self, the desire to be attractive, to be liked by others. This is manifested by her "make up", her dress, her manners and her language expressions. The teacher should use this interest as a strong motivating factor for the work in

... it is not to be a positive fact in itself. We think, also, ...
... the fact that the girl who has a strong interest in home making ...
... this girl is a member of a family which has been ...
... to help her mother in the home as to work in the house ...
... of other people. Again, we find the girl with a ...
... who has a desire for independence and power on the one ...
... and a lack of reaction and self-respect on the other. ...
... it is possible for the teacher, through her own ...
... to present a picture which will be to the girl. ...
... in the kind of health condition which should be ...
... of the girl who has no interest in home making. Such values ...
... of a number of other related areas of life, which for her ...
... the girl, and the amount of interest in personal hygiene, ...
... and social relations, ways of concentrating in the ...
... and care of her own room. These girls who really enjoy ...
... activities could receive a home home making course with ...
... on related areas, household budget, child care, social ...
... the girls' children and families, lessons on home ...
... home care, and interest in social life. The girl who ...
... interests would then work in personal hygiene, home ...
... home making, child care, and child care. A study of the family ...
... and the relationship as a whole would give the ...
... of girl an opportunity to express herself on the ...
... behavior as a member of the family group. ...
... A common characteristic of most of these girls is the ...
... interest in self, the desire to be responsible, to be liked by ...
... others. This is manifested by her home life, her ...
... and her language expressions. The teacher should ...
... this interest as a strong motivating factor for the work in

personal hygiene.

A good proportion of the girls are interested in "boy friends." Usually the girls who come to the continuation school marry early.¹ Other girls in the group are more interested in their family and their immediate home life. All of these girls desire to have attractive and cheery homes, and many of them look forward to having modern homes some day. These interests may be used to motivate the work in home and community hygiene.

Capacities

Some knowledge of the physical and mental capacities of part-time children as compared with other school children would help the continuation school teacher to determine the outline of subject matter, and the methods which she will use to develop it. Very interesting studies comparing these two groups of children have been made by L. T. Hopkins, H. T. Wooley, and others which will serve our purpose here.

Physical Capacity

Helen T. Wooley found in her studies that working children, even before they entered industry, were at a disadvantage physically when compared with school children. From studies carried on over a period of time, Dr. Wooley found that school children mature earlier than working children, and are superior

¹ "It was found that few data on this subject were available. The general impression of part-time directors, however, seems to be in some instances, that part-time school pupils marry at an early age. The reasons for these early marriages, according to the directors, are as follows: Desire for freedom from unpleasant, poor, home conditions, racial tendency of foreign groups following customs of old country, foreign parents arrange marriage, adolescent romance, girls run away and marry, parents separated, impetuosity of youth, and immorality through ignorance." National Education Association Report. Pupil-Personnell in Part-time School. 1924. p. 18.

A good proportion of the girls are interested in "artistic" studies. The girls who come to the continuation school early. Others claim in the group are more interested in their family and their immediate home life. All of these girls desire to have artistic and literary hobbies, and many of them look forward to having a home of their own. These interests may be used to motivate the work in home and community studies.

Continuation

Some knowledge of the physical and mental capacities of girls is necessary in order to compare with other school children. The girls in the continuation school are more interested in the study of subjects, and the methods which are used in the study of subjects. The girls in the continuation school are more interested in the study of subjects, and the methods which are used in the study of subjects. The girls in the continuation school are more interested in the study of subjects, and the methods which are used in the study of subjects.

Physical Education

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It was found that few girls in this subject were well-versed in the study of subjects, and the methods which are used in the study of subjects. The girls in the continuation school are more interested in the study of subjects, and the methods which are used in the study of subjects. The girls in the continuation school are more interested in the study of subjects, and the methods which are used in the study of subjects.

in vital capacity and strength.¹ From the facts revealed in Dr. Wooley's study, we are led to believe that emphasis should be placed on physical growth and development, if the teacher is to give health education that meets the needs of the students.

Mental Capacity

Of the few studies made comparing the mental ability of the pupils enrolled in part-time schools with those of the regular graded school, those by H. T. Wooley, F. J. Keller, and L. T. Hopkins indicate that a larger proportion of pupils falling

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"In general school children are superior to working children in every physical measurement except that of steadiness at 17 and 18 years.

"School children as a group reach physical maturity earlier than working children. In most measures, the period of rapid yearly gain stops a year earlier for school children than for working children. In the case of boys, in most measures, school boys make large yearly gains up to 16 years and working boys up to 17 years. The same difference is observable in the measure of girls, though it is not quite so clear and consistent. Girls mature earlier than boys. In most instances school girls have completed their period of rapid yearly gain in physical capacities by 14 or 15, and working girls by 16 or 17.

"Because of the differences noted in age of maturity, working children differ less from school children in physical capacity at 18 years than they did at 14 years.

"The results scarcely justify us in drawing conclusions about the effect of industrial life on physical growth and development. Since school children are at every age superior, the presumption is, of course, in favor of school life as a background for physical development, but since the difference between the two groups was even greater at 14 before either group had entered industry than at 18 after 4 years of school life for the other, we are not justified in attributing the inferiority of working children to the effect of industry on them.

"The physical measures in which school children, both boys and girls, are more superior to working children at 18 years than they were at 14 years are in vital capacity and strength. One might hazard a guess that high-school athletics tend to train vital capacity and strength whereas the factory work in which over half of the working group were engaged tends to train rapidity, steadiness and coordination of eye and hand." Wooley, H.T. An Experimental Study with Children. p. 246-247.

in vital capacity and strength. From the facts revealed in Dr. Woolley's study, we are led to believe that emphasis should be placed on physical growth and development, if the teacher is to give health education that meets the needs of the students.

General Conclusions

Of the few studies were compared the mental ability of the pupils enrolled in part-time schools with those of the regular schools, those by H. T. Woolley, F. J. Kelley and H. T. Hopkins indicate that a larger proportion of pupils falling

"In general school children are superior to working children in every physical measurement except that of steadiness of hand in years. School children as a group reach physical maturity earlier than working children. In most measures, the period of rapid growth gain about a year earlier for school children than for working children. In the case of boys, in most measures, school boys reach about 15 years of age as to 15 years and working boys up to 17 years. The same difference is observed in the measure of vital capacity, though it is not quite so clear and consistent. Girls mature earlier than boys. In most measures school girls have exceeded their period of rapid growth gain in physical capacity on 15 or 16, and working girls on 16 or 17. Because of the difference noted in age of maturity, working children have been school children in physical capacity at 15 years than they did at 14 years. The results strongly justify us in drawing conclusions about the effect of industrial life on physical growth and development. Since school children are at every age superior, the presumption is, of course, in favor of school life as a background for physical development, but since the difference between the two groups was even greater at 14 before either group had entered industry than at 15 after 4 years of school life for the other, we are justified in attributing the inferiority of working children to the effect of industry on them. The physical measures in which school children, both boys and girls, are superior to working children at 15 years, then they were at 14 years in vital capacity and strength, they might expect that night-school activities lead to these vital capacity and strength whereas the factory work in which over half of the working group were engaged tends to drain vitality, steadiness and coordination of eye and hand." Woolley, H.T. An Experimental Study of Children, p. 242-247.

below the average in intelligence will be found in part-time schools.¹ Accordingly, the methods of instruction to be used should provide for work on an individual basis.²

Relation of Physical and Mental Abilities

Recent studies made to determine the degree of relationship between physical and mental capacities in the same individual point to a close correlation between mental and physical abilities; namely, that superior mental and physical ability tend to occur in the same individual.³ Other writers and particularly enthusiastic health workers, attribute 15-20 percent of non-promotion, retardation, and elimination from school to ill health and remedial defects. These are significant statements when we consider the chronological age and grade levels of con-

1

Pupil Personnell in Part-time Schools. National Education Association Report. July, 1926. p. 20.

2

L. T. Hopkins reports:

"The tremendous spread of I. Q's. from the genius level to the feeble minded shows at a glance the complexity of the educational problem which faces the part-time school. Many teachers find that wide variation in mental ability coupled with the great diversity of interest among part-time pupils makes individual instruction a necessity." Hopkins, L. T. The Intelligence of Continuation School Children in Massachusetts. Harvard University Press. 1924. p. 96.

3

Dr. H. T. Wooley states:

"It is worth while to issue a caution against interpreting series of facts in terms of cause and effect. Some enthusiastic nutrition workers for instance, have been inclined to assume that the small children were undernourished and that the school retardation was the result of undernourishment. Improve the nutrition of the child they argue and the school retardation will be retrieved. It seems more probable that mental superiority and physical superiority tend to occur in the same organism than that either one is directly the cause of the other. We have a general faith that both physical condition and mental condition are well worth improving for their own sakes and furthermore, that an improvement in one tends to react favorably on the other. As yet, however, we have no very accurate notion of the extent to which mental ills can be cured by improving physical conditions or physical ills cured by improving mental conditions." Wooley, H.T. An Experimental Study with Children. 1926. p. 206.

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1931 Research in Public-Schools. National Education Association Report, July, 1933, p. 50.

1. C. Hopkins report:

"The preceding report of I. C. Hopkins from the same level on the basis of a glance the complexity of the physical problem which faces the public school today. It is clear that there is a variation in mental ability among the great diversity of interest among public school teachers. Individual instruction is necessary." Hopkins, I. C. The Individual in Public-School Education in Massachusetts, Harvard University Press, 1934, p. 88.

W. E. W. Woolley states:

"It is worth while to have a reaction against infatuation with the idea of tests of nature and effort. Some studies of the physical condition of children, have been found to show that the small children were undernourished and that the general condition was the result of undernourishment. Improve the condition of the child body and the mental condition will be relieved. It seems more probable that mental and physical conditions tend to occur in the same children than that there are a directly the cause of the other. We have a general faith that both physical condition and mental condition are well improved for their own sake and therefore, that an improvement in one leads to mental improvement. As yet, however, we have no very accurate notion of the extent to which mental life can be improved by physical condition or physical life can be improved by mental condition." Woolley, W. E. Experimental Study of Mental Condition, 1934, p. 508.

tinuation school students, and in view of the fact that only 6 percent of the students leave school because of economic reasons.¹ The importance of having corrective work done should be felt by these students before their last contacts with school life are over.

Effect of Environmental Conditions

Within recent years the tremendous influence of emotional factors upon physical and mental health has been brought to the attention of teachers.² An analysis of the reports of follow-up visits made to the homes of the continuation school girls indicates that they are faced with problems arising within the home environment, but more often than not, with problems coming as a result of unsatisfactory home adjustments which seem to color their outlook on life, sometimes producing in the girls unwholesome attitudes of irritability or lack of enthusiasm for school work. Some of the social and economic conditions within the home which influence the girl's physical and mental health are: poverty, improper nutriment, fatigue, lack of parental control and understanding of adolescence, and the presence of unusual hazards of disease. Such conditions make for a degree of worry about home affairs which bring in these girls inferiority complexes and attitudes of hopelessness at an early age which take the zest out of effort for them. While certain aspects of health, such as the normality of sense organs, are largely independent of these home conditions, never-

1

White House Conference on Child Health and Welfare. Supplement of United States Daily. Nov. 1930. p. 52.

2

These case studies are on file at the Worcester Continuation School.

elementary school children, and in view of the fact that only
 a portion of the children have school records of attendance
 records. The importance of having complete work done should
 be kept by these students before their contact with
 school life can begin.

Effect of Environmental Conditions

Within recent years the increasing influence of environmental
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 conditions within the home which influence the child's physical
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 lack of parental control and understanding of adolescence, and
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 take for a matter of worry about some affairs which bring in
 from this maladjustment complex and attitudes of hopelessness
 at an early age which take the time out of effort for them.
 While certain aspects of health, such as the heredity of many
 organs, are largely independent of these home conditions, never-

While these conditions on Child Health and Welfare,
 Department of Public Health, New York, 1930, p. 28.
 These case studies are on file at the Department of
 Education, New York.

theless there can be no doubt that a happy home atmosphere is conducive to general good health.¹ A sympathetic and constructive attitude on the part of the teacher in follow-up work may often be the means of bringing out some changes in the environmental conditions affecting the girl's health.

Another environmental factor of importance is the companionship, which results from the neighborhoods in which some of these girls live, the shops in which they work, or the dance halls which they frequent. The effects of these factors cannot be easily measured. Although the school can exert very little control over such environmental conditions, it should be cognizant of them and offer what direction it can, if it is to help develop healthy personalities.

Upon most girls of their age, the motion pictures have a vital and lasting influence. The very nature of the presentations, appealing to the eye, ear, and sense of motion make these impressionable girls live the experience witnessed. The teacher's attitude toward such matters should be such that it would inspire confidence in her judgment and present opportunities for her to help the girl to self knowledge, self appraisal, self expression, and self development. With her background of know-

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In this connection Dr. Wooley reports:

"The children that had the stable, happy home background with an uninterrupted school career, and a moderate degree of self confidence, are those who rapidly reached an adjustment in industry; while those with the broken homes, irregular school career, and dispirited type of personality are those that, in spite of their superior mental ability, drifted about from one thing to another and failed to reach an adjustment."

"It is a striking fact that the difference of home background, in these extreme cases, can not only counteract differences in mental ability, but can give to inferior children an advantage of three years in educational progress by the age of 14 years."

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... the part of the teacher in following up with the
... of the same of living out some changes in the system
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... estimate toward such matters should be such that it would in-
... agree conditions in his judgment and present opportunities for
... her to help his child to self-knowledge, self-expression, self-
... expression, and self-development. With this background of know-

In this connection Dr. Waller reports:
"The child must have the ability, happy home background
with an unobstructed mental growth, and a favorable degree of
self-confidence, and these are the things which are necessary
in education. The child must have the proper mental, physical, and
emotional, and spiritual type of personality and these things in
the child's nature must be fully developed about the time
when he enters school and fails to reach an adjustment."
It is a well-known fact that the difference of home background
in these things is not only a constant difference in
mental ability, but also in the child's progress in school.
Of these years in school and progress of the child of 12 years."

ledge, the teacher can help the girl to realize herself and to interpret for her the world she is entering.

Conversations with these girls show the extent of the impressions made on them by the motion picture stars whom they admire. This tendency to idealism and self improvement, admiration of physical perfection and physical ability, and admiration of character can be used to establish high ideals of womanhood and an appreciation of the part good health and right living play in life.

Summary

Girls with widely different interests enter the home making classes in continuation schools, but they have some common interests, namely: interest in the home, in self improvement, in service, which can be used as motivating factors for the work in personal, home and community hygiene, child care and first aid. The material presented should be such that the girls will feel that there are some values in health education.

Studies made comparing the physical capacities of working children with those of school children show that the working children are at a disadvantage physically when compared with school children.

Other studies made comparing the mental abilities of continuation school children with those enrolled in the regular school indicate that a larger number of continuation school children fall below the average in intelligence.

Conclusions made from studies to determine the degree of relationship between mental and physical abilities show that an improvement in one tends to react favorably on the other. Attention should be given, therefore, to general improvement

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to understand for him the world and its meaning.
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...institutions made on them by the action picture when they
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...relationship between mental and physical abilities show that
...an improvement in one tends to result favorably on the other.
...Attention should be given, therefore, to general improvement

of physical health, growth, and the correction of remedial defects. Some of the environmental conditions in the home which may have a deterring effect on the child's mental, emotional, social and moral health are: poverty, fatigue, incompetence of parents, and the presence of disease hazards; in the neighborhood and shop environs may be found improper companionship, low class "movie" houses and cheap dance halls. The teacher as a counsellor, home and shop visitor may bring about changes in the environment of the girls which in turn might affect changes in their personality. Their tendencies to hero worship at this age present opportunities for the establishment of high ideals of manhood and womanhood.

of physical and mental growth, and the correction of racial differences. Some of the environmental conditions in the home which may have a determining effect on the child's mental, emotional, social and moral health are: poverty, fatigue, ignorance of parents, and the presence of disease hazards; in the neighborhood and such factors may be found improper companionship, the class "movie" houses and cheap dance halls. The teacher as a counsellor, home and shop visitation may bring about changes in the environment of the child which in turn might affect changes in their personality. Their tendencies to have worship at the present opportunities for the establishment of high ideals of method and womanhood.

CHAPTER IVA STUDY OF THE HEALTH NEEDS OF A SPECIFIC GROUP

A positive, constructive health program to-day is based upon the immediate needs of the children under instruction. The writer had such a program in mind when the surveys included in this study were made of 102 girls in 10 foods classes of related academic work.

Physical Examinations

Previous to 1930 there were no physical examinations carried on yearly by school doctors for continuation school pupils in Worcester. The fact that no pupil can enter industry unless he has a doctor sign his working card had been considered as satisfactory evidence of the child's health condition. But such an examination did not serve the school's purpose in a modern health program. When the need became apparent, yearly physical examinations were made a part of the routine procedure for continuation school pupils through the cooperation of the school and health departments of the city.

When the doctor and school nurse were assigned to the school, systematic physical examinations were begun. As each student approached the examiner, he was observed by the physician for color and appearance, and a general estimate was made for the defects that were listed on the physical examination card.¹ Any child who appeared to be below par was given closer

¹ The appendix contains copies of the physical health record card and all questionnaires used in the testing. p. 2-3.

CHAPTER IV

A STUDY OF THE HEALTH RECORD OF A SELECTED GROUP

A positive, constructive health program is based upon the immediate needs of the children under investigation. The writer had such a program in mind when the survey began and in this study were made of 102 girls in 10 public schools of selected middle-class work.

Physical Examinations

Previous to 1930 there were no physical examinations required or yearly by school doctors for continuation school pupils in Worcester. The first test no doubt was after 1930 for unless he has a doctor sign the working card has been considered as satisfactory evidence of the child's health condition. But such an examination did not serve the school's purpose in a modern health program. When the new program began, yearly physical examinations were made a part of the routine procedure for continuation school pupils through the cooperation of the school and health departments of the city. When the doctor and school nurse were assigned to the school, systematic physical examinations were begun. In each student approached the examiner, he was observed by the physical nurse for color and appearance, and a general estimate was made for the defects that were listed on the physical examination card. The child who appeared to be below par was given closer

The appendix contains copies of the physical health record card and all questionnaires used in the study. P. 2-3.

attention and longer time, although additional time was taken to comment on the positive health findings. The teacher was in attendance during the examination.

Before the physical examination was undertaken, the teacher had examined the eyes and ears of the students.

The following table gives the results of the physical tests of the 10 groups of girls in the food classes.

Table 1 -- PHYSICAL DEFECTS

Types of Defects	Number of Children Tested	Number of Defects	Percent
Number Underweight..... (more than 7% under)	102	10	10
Number Overweight..... (more than 10% over)	102	14	14
Skin Disease..... (not acne)	102	2	2
Defective Eyesight..... (not wearing glasses)	102	8	8
Defective Teeth.....	102	35	35
Defective Hearing.....	102	1	1
Enlarged Tonsils.....	102	10	10
Heart Affection.....	102	2	2

Results of Physical Examination

The most common defects observed by the doctor were those pertaining to teeth and tonsils. There was one case of pyorrhea, and two girls had such serious cases of defective tonsils that immediate attention was required.

Body and Foot Posture

A very careful examination of body and foot posture was made by a teacher of physical education who had specialized in this work and who was on full-time service in the high and elementary grades. The most important features noted are listed below. Due to conflicts of schedule only 80 were tested in the food classes.

Table 11 -- POSTURE DEFECTS

Types of Defects	Number of Children Tested	Number of Defects	Percent
Head Forward.....	80.....	46.....	58...
Rt. Scapula (shoulder).....	80.....	9.....	11...
Lt. Scapula low.....	80.....	21.....	26...
Rt. Scapula prominent.....	80.....	10.....	13...
Lt. Scapula prominent.....	80.....	11.....	14...
Kyphosis (upper curve in spine).....	80.....	2.....	3....
Lordosis (lower curve in spine).....	80.....	8.....	10...
Rt. Hip high.....	80.....	6.....	8....
Lt. Hip high.....	80.....	5.....	6....
Feet Pronated (begin- ning flat feet on both).....	80.....	3.....	4....
Rt. Pronated.....	80.....	9.....	11...
Lt. Pronated.....	80.....	10.....	13...
Rating of A, B ₊	80.....	16.....	20...
Rating of B, B-, C.....	80.....	44.....	55...
Rating of C-, D.....	80.....	20.....	25...

Results of Posture Examination

There were five clinical cases advised from this group. Approximately $\frac{4}{5}$ of the children needed corrective work in posture of some kind. Very often the first stages of flat feet were evidenced in children with poor posture. The condition of these children could not be charged to industry because many of them had been in industry for only a short time. Some of the girls admitted that their poor posture was due to carrying younger children in certain positions.

General Health

Under the score of general health, the doctor looked for indications of undue nervousness, anaemia. Six percent of the girls had acne and another three percent frequent headaches. The questions asked by the doctor revealed that digestive disturbances and poor food habits were partly responsible for these conditions.

Survey on Health Habits

For several months previous to the physical examinations the pupils had been keeping individual graphs of their own health habits. In order to secure an honest rating of this feature of the work the girls were asked to cooperate by answering as truthfully as possible what they had done the previous day relative to the questions asked on the questionnaire.¹

1

See appendix for questionnaire. p. 3.

Results of Physical Examination

There were five clinical cases advised from this group. Approximately 4/5 of the children needed corrective work in posture of some kind. Very often the first stages of flat feet were evidenced in children with poor posture. The condition of these children could not be changed so readily because many of them had been in industry for only a short time. Some of the girls admitted that their poor posture was due to carrying younger children in certain positions.

General Health

Under the score of general health, the doctor looked for indications of acute nervousness, anemia. Six percent of the girls had some and another three percent frequent headaches. The physical state of the doctor revealed that digestive disturbances and poor food habits were partly responsible for these conditions.

General Health Habits

For several months previous to the physical examinations the girls had been keeping individual graphs of their general health habits. In order to secure an honest record of this condition of the work the girls were asked to cooperate by answering as truthfully as possible what they had done the previous day relative to the questions asked on the questionnaire.

The following table shows the results tabulated according to the number performing for a day. It is, of course, not an accurate test because it was not taken at different intervals, over a period of time.

Table 111 -- SURVEY OF HEALTH HABITS

Health Habits	Number of Children Tested	Number Perform- ing	Percent
1. Had 9 hours of rest.....	102	55	53...
2. Full bath during week.....	102	65	65...
3. Washed face - hands before breakfast.....	102	95	93...
4. Brushed teeth before school....	102	67	66...
5. Brushed teeth after supper.....	102	43	42...
6. Drank 4 glasses of water.....	102	73	72...
7. Drank 2 glasses of milk.....	102	51	50...
8. Drank tea or coffee.....	102	67	66...
9. Ate hot cereal.....	102	53	52...
10. Ate fresh fruit.....	102	96	94...
11. Ate green vegetables.....	102	75	74...
12. Exercised out-of-doors.....	102	21	21...
13. Exercised indoors after work...	102	41	40...
14. Attended movies after work before supper.....	102	7	7....
15. Attended movies after supper.....	102	16	16...
16. Washed hands after going to toilet.....	102	93	91...
17. Washed hands before every meal.....	102	81	89...
18. Had a bowel movement before school.....	102	56	55...
20. Used own towel and wash cloth.....	102	52	51...
21. Ate candy between meals.....	102	49	48...
22. Helped father or mother or someone yesterday.....	102	78	76...
23. Had a good time yesterday.....	102	36	35...
24. Did not have a good time yesterday.....	102	29	28...

The following table shows the results tabulated according to the number of children for a day. It is, of course, not an accurate test because it was not taken at different intervals over a period of time.

Table III -- SURVEY OF MENTAL RESULTS

Health Status	Number of Children (Total)	Number of Children (Sample)	Percentage
1. Had 2 hours of rest	102	102	100
2. Fell better during week	102	102	100
3. Washed face - hands before breakfast	102	102	100
4. Brushed teeth before school	102	102	100
5. Washed face after supper	102	102	100
6. Took a glass of water	102	102	100
7. Drank 2 glasses of milk	102	102	100
8. Drank tea or coffee	102	102	100
9. Ate hot dinner	102	102	100
10. Ate fresh fruit	102	102	100
11. Ate green vegetables	102	102	100
12. Washed hands before work	102	102	100
13. Washed hands after work	102	102	100
14. Washed hands after supper	102	102	100
15. Washed hands after going to bed	102	102	100
16. Washed hands before breakfast	102	102	100
17. Had a good night's sleep	102	102	100
18. Had a good breakfast	102	102	100
19. Had a good lunch	102	102	100
20. Had a good dinner	102	102	100
21. Had a good supper	102	102	100
22. Had a good night's sleep	102	102	100
23. Had a good breakfast	102	102	100
24. Had a good lunch	102	102	100
25. Had a good dinner	102	102	100
26. Had a good supper	102	102	100
27. Had a good night's sleep	102	102	100
28. Had a good breakfast	102	102	100
29. Had a good lunch	102	102	100
30. Had a good dinner	102	102	100
31. Had a good supper	102	102	100
32. Had a good night's sleep	102	102	100
33. Had a good breakfast	102	102	100
34. Had a good lunch	102	102	100
35. Had a good dinner	102	102	100
36. Had a good supper	102	102	100
37. Had a good night's sleep	102	102	100
38. Had a good breakfast	102	102	100
39. Had a good lunch	102	102	100
40. Had a good dinner	102	102	100
41. Had a good supper	102	102	100
42. Had a good night's sleep	102	102	100
43. Had a good breakfast	102	102	100
44. Had a good lunch	102	102	100
45. Had a good dinner	102	102	100
46. Had a good supper	102	102	100
47. Had a good night's sleep	102	102	100
48. Had a good breakfast	102	102	100
49. Had a good lunch	102	102	100
50. Had a good dinner	102	102	100
51. Had a good supper	102	102	100
52. Had a good night's sleep	102	102	100
53. Had a good breakfast	102	102	100
54. Had a good lunch	102	102	100
55. Had a good dinner	102	102	100
56. Had a good supper	102	102	100
57. Had a good night's sleep	102	102	100
58. Had a good breakfast	102	102	100
59. Had a good lunch	102	102	100
60. Had a good dinner	102	102	100
61. Had a good supper	102	102	100
62. Had a good night's sleep	102	102	100
63. Had a good breakfast	102	102	100
64. Had a good lunch	102	102	100
65. Had a good dinner	102	102	100
66. Had a good supper	102	102	100
67. Had a good night's sleep	102	102	100
68. Had a good breakfast	102	102	100
69. Had a good lunch	102	102	100
70. Had a good dinner	102	102	100
71. Had a good supper	102	102	100
72. Had a good night's sleep	102	102	100
73. Had a good breakfast	102	102	100
74. Had a good lunch	102	102	100
75. Had a good dinner	102	102	100
76. Had a good supper	102	102	100
77. Had a good night's sleep	102	102	100
78. Had a good breakfast	102	102	100
79. Had a good lunch	102	102	100
80. Had a good dinner	102	102	100
81. Had a good supper	102	102	100
82. Had a good night's sleep	102	102	100
83. Had a good breakfast	102	102	100
84. Had a good lunch	102	102	100
85. Had a good dinner	102	102	100
86. Had a good supper	102	102	100
87. Had a good night's sleep	102	102	100
88. Had a good breakfast	102	102	100
89. Had a good lunch	102	102	100
90. Had a good dinner	102	102	100
91. Had a good supper	102	102	100
92. Had a good night's sleep	102	102	100
93. Had a good breakfast	102	102	100
94. Had a good lunch	102	102	100
95. Had a good dinner	102	102	100
96. Had a good supper	102	102	100
97. Had a good night's sleep	102	102	100
98. Had a good breakfast	102	102	100
99. Had a good lunch	102	102	100
100. Had a good dinner	102	102	100
101. Had a good supper	102	102	100
102. Had a good night's sleep	102	102	100

Results of Survey of Health Habits

The results of this survey may be classified in two ways: (1) habits of omission through negligence (2) those omitted because the children did not have control of the situation.

The following habits are those which were omitted largely through negligence: failure to have 9 hours of sleep, failure to have a full bath once a week, failure to brush teeth, failure to exercise out-of-doors or indoors, failure to keep bowels regular, failure to abstain from candy between meals.

These habits may be considered as not having been entirely within the pupil's control: sleeping with windows open, eating hot cereal, drinking 2 glasses of milk, using own towel and wash cloth.

Survey of Foods Used in the Home

Since foods work was the major vocational choice of the members of this class, a more detailed study was made of those foods most commonly used in home menus to determine how the school could cooperate best with the home for better food habits.

Results of Analysis of Food Habits

The results of this survey may be summarized in two ways: (1) habits of eating through negligence (2) those habits which the children did not have control of the situation. The following habits are those which were noted frequently:

- through negligence failure to have 3 hours of sleep, failure to have a full bath once a week, failure to brush teeth, failure to exercise out-of-doors or indoors, failure to keep house clean, failure to maintain food habits between meals.

These habits may be considered as not having been entirely within the child's control; although it is obvious that, again and over, the child is responsible for his own habits and also those of his family.

Results of Food Habits in the Home

Since food is the major vocational choice of the members of this class, a more detailed study was made of their food habits. It was found that in home habits the children could cooperate more with the home for better food habits.

Table IV -- A SURVEY OF KINDS OF FOODS WITH FREQUENCY
OF CONSUMPTION IN HOME MENUS

Kinds of Foods	No. Test- ed	Once a Week	Three times a Week	Once a day five times a Week	More than once a day	Total No.	Per- cent of class using
1. Cereals, cooked.....	70	5	10	14	27	39..	
2. " uncooked.....	70	6	10	7	23	33..	
3. Fruits, cooked.....	70	16	7	12	25	36..	
4. " uncooked.....	70	7	7	7	16	23..	
5. " canned.....	70	7	4	2	13	19..	
6. " dried.....	70	6	3	1	7	10..	
7. Jelly.....	70	13	4	3	31	30..	
8. Jam.....	70	5	5	5	16	23..	
9. Macaroni.....	70	13	13	11	38	54..	
10. Rice.....	70	2	5	1	8	11..	
11. Pickles.....	70	3	6	12	23	33..	
12. Cocoa.....	70	11	3	9	31	30..	
13. Coffee.....	70	8	11	13	25	36..	
14. Tea.....	70	4	19	14	27	39..	
15. Milk.....	70	3	3	14	19	27..	
16. Bread, home made, white.....	70	5	2	6	21	30..	
" Bread, home made, whole grain.....	70	5	5	5	10	14..	
17. Bread, Baker's white.....	70	3	3	11	15	19..	
" Bread, Baker's, whole grain.....	70	3	3	15	12	30..	
18. Hot Bread.....	70	1	3	1	5	7..	
19. Pancakes.....	70	12	4	2	18	26..	
20. Puddings.....	70	5	19	4	28	40..	
21. Vegetables, cooked.....	70	4	8	11	23	33..	
22. " uncooked.....	70	13	3	4	16	23..	
23. " canned.....	70	6	4	3	13	19..	
24. Potatoes.....	70	6	15	4	25	36..	
25. Butter.....	70	1	2	7	8	20..	
26. Cheese.....	70	13	4	3	20	29..	
27. Cottage cheese.....	70	4	2	2	6	09..	
28. Meats, broiled.....	70	8	3	4	15	21..	
29. " fried.....	70	8	7	2	17	24..	
30. " roasted.....	70	17	1	1	19	27..	
31. " boiled.....	70	6	2	5	15	21..	
32. " canned.....	70	1	1	2	2	02..	
33. " dried.....	70	1	1	1	1	01..	
34. Fish.....	70	17	2	1	20	29..	
35. Poultry.....	70	10	4	1	15	21..	
36. Salads.....	70	6	4	6	18	26..	
37. Eggs.....	70	5	10	11	27	39..	
38. Soup.....	70	4	13	7	24	34..	
39. Cake.....	70	4	2	6	18	26..	
40. Pie.....	70	4	1	6	11	16..	

Results of Foods Survey

The results show that much tea and coffee is used as a beverage in preference to milk in the diet of these children. More butter, eggs, potatoes, raw fruits and vegetables, cooked or prepared cereals, and more meat should be included. The families of these children also were unaccustomed to using much canned fruit or vegetables, dried meat or fruits, cottage cheese, and rice.

Health Knowledge Tests

The Gates-Strang Health Knowledge Completion Tests were tried with these pupils as a typical test used in elementary grades to test general health knowledge. Class numbers had begun to deplete at this time so that only 89 took the test. The class scored 44.6 percent which is considered average for an eighth grade.

Results of Health Knowledge Tests

The following statements are those which more than ten children did not complete successfully:

1. The facts about keeping well which we learn now may change as new discoveries are made.
2. A good place for mosquitoes to be born is in tin cans full of water.
3. A child in the sixth grade should keep his book 14 to 20 inches in front of his eyes.
4. In dusting woodwork the house keeper should use a damp or oiled cloth.
5. The best location for a well is on much higher ground than the barn or water closet.

Results of Study Survey

The results show that the most common use of the word "water" is in reference to drink in the diet of these children. Next came, eggs, potatoes, raw fruits and vegetables, cooked or prepared cereals, and some other should be included. The last item of these children also were interested in using water, cleaned fruit or vegetables, baked meat or turkey, potatoes, cheese, and rice.

Health Knowledge Tests

The Health-Knowledge Tests (Health Knowledge Tests) were given to these pupils as a typical test used in elementary schools to test general health knowledge. Class members had no idea in health at this time as they only 83 took the test. The class scored 44.5 percent which is considered average for an eighth grade.

Results of Health Knowledge Tests

The following statements are those which were true and

which are not complete and correct:

1. The water should be kept well which is clean and pure.
change as new diseases are made.
2. A good place for mosquitoes to be born is in the water.
fill of water.
3. A child is not sixth grade should keep his book in a box.
30 inches in front of his eyes.
4. In dressing outdoors the house keeper should use a lamp or light glass.
or light glass.
5. The best location for a well is on each side of the ground.
than the top of water glass.

6. The amount of food we ought to eat depends mostly upon our size and what we do.
7. The average amount which the stomach of a grown person holds is 2 to 3 pints.
8. A good average number of calories for lunch for an average boy 13 years old is 700 to 900 calories.

The most notable results of this test showed that there were deficiencies in information pertaining to community hygiene, indicated by failures to make proper choices; statements 2,4,5; the same result was noted in the study of calories, statements 6,8,9; and again in the study of personal hygiene and physiology, statements 1,2,7.

Survey of Home Activities

It was important with students of such classes, who were employed in homes or who worked in factories, to have a knowledge of the types of activities pursued by them and the health factors involved in these activities. The writer found, in the foods classes of the 70 girls tested, that 26 worked in their own homes, 10 were employed as mothers' helpers and 34 worked in factories. This gives a total of 36 working full time in the home, as against 34 working in the shop full time and in the home only part time.

Table VI gives the activities of both of these groups in the home.

6. The amount of food we weigh to eat depends mostly upon
the time of day we eat.

7. The average amount which the stomach of a grown person
holds is 2 to 3 quarts.

8. A good average number of calories for lunch for an
average boy 15 years old is 700 to 800 calories.

The most notable results of this last survey were that some

deficiencies in information pertaining to community hygiene, in-
dicated by failures to make proper choices; statements 2, 4, 5; the
same results were noted in the study of calories, statements 6, 8, 9,
and again in the study of personal hygiene and physiology, state-
ments 1, 2, 7.

Survey of Home Activities

It was important with students of such interests, who were
employed in homes of who worked in factories, to have a know-
ledge of the types of activities pursued by them and the health
factors involved in these activities. The writer found, in the
study of the types of activities pursued, that 28 worked in their
own homes, 10 were employed as seamstresses, 12 worked in their
factories. This gives a total of 38 working full time in the
home, as against 28 working in the shop full time and in the
home only part time.

Table VI gives the activities of both of these groups in
the home.

Table VI -- SURVEY OF ACTIVITIES IN THE HOME
DURING THE WEEK

Types of Activities Pursued	No. Tested	Once a Week	Three times a Week	Once a Day Five Times a Week	More than once a day	Girls Per-forming Acti-vity	Percent of Class Per-forming at least once
1. Clean (whole re-sponsibilities)...	70	12	3	22	2	39	56
2. Help to clean....	70	16	10	22		48	69
3. Polish furntiure..	70	30	7			37	53
4. Cook.....	70	9	1	10	7	26	37
5. Bake.....	70	22	2			24	34
6. Wash dishes.....	70		2	16	28	46	66
7. Errands.....	70		7	9	20	36	51
8. Make beds.....	70	1		31	2	34	49
9. Make fires.....	70	2	2	22		26	34
10. Clean own room...	70	8	4	26		38	54
11. Full care of children.....	70	2	6	13	4	26	36
12. Care halls, porches, walks...	70	18	6	13		36	51
13. Care of own clothes.....	70	12	13	4		29	41
14. Put up lunches...	70	1	1	12	1	17	24
15. Preparation of breakfast.....	70	2		8		20	29
16. Preparation of dinner.....	70			18		18	26
17. Set the table....	70		5	15	16	36	51
18. Sweep floors.....	70		12	23	13	48	69
19. Dust.....	70	5	7	24	2	38	54
20. Laundry.....	70	11	5	4		20	29
21. Iron.....	70	11	5	4		20	29
22. Sew.....	70	10	5	3		18	26

Results of Survey of Home Activities

For both of these groups, cleaning, sweeping, dusting, washing dishes, making beds, and ironing are the activities most commonly pursued by these girls in the home. More than one third of the girls care for younger children.

TABLE VI -- SUMMARY OF ACTIVITIES IN THE HOME
IN THE LAST WEEK

Types of Activities Performed	Days of Week	Times a Week	Times a Day	Times a Week	Times a Day	Times a Week	Times a Day
...

1. House (kitchen) re-	...	...	...	...	...	...	...
2. Bathing (bath)	...	...	...	...	...	...	...
3. Bathing (kitchen)	...	...	...	...	...	...	...
4. Bathing (bath)	...	...	...	...	...	...	...
5. Bathing (kitchen)	...	...	...	...	...	...	...
6. Bathing (bath)	...	...	...	...	...	...	...
7. Bathing (kitchen)	...	...	...	...	...	...	...
8. Bathing (bath)	...	...	...	...	...	...	...
9. Bathing (kitchen)	...	...	...	...	...	...	...
10. Bathing (bath)	...	...	...	...	...	...	...
11. Bathing (kitchen)	...	...	...	...	...	...	...
12. Bathing (bath)	...	...	...	...	...	...	...
13. Bathing (kitchen)	...	...	...	...	...	...	...
14. Bathing (bath)	...	...	...	...	...	...	...
15. Bathing (kitchen)	...	...	...	...	...	...	...
16. Bathing (bath)	...	...	...	...	...	...	...
17. Bathing (kitchen)	...	...	...	...	...	...	...
18. Bathing (bath)	...	...	...	...	...	...	...
19. Bathing (kitchen)	...	...	...	...	...	...	...
20. Bathing (bath)	...	...	...	...	...	...	...
21. Bathing (kitchen)	...	...	...	...	...	...	...
22. Bathing (bath)	...	...	...	...	...	...	...

Summary of Survey of Home Activities

For both of these groups, cleaning, sweeping, dusting, wash-
ing dishes, setting beds, and ironing are the activities most com-
monly observed in these girls in the home. More than one third of
the girls care for younger children.

Survey of Working Conditions

The 34 girls employed in the shop were asked to analyze their own jobs, from the standpoint of the health hazards involved, and to give their analyses as an exercise in oral English. The results were tabulated as follows:

Table VII -- A SURVEY OF WORK CONDITIONS

Shop	Good		Fair		Poor	
	No.	Percent	No.	Percent	No.	Percent
General cleanliness..	22	64	5	15	3	09
Lighting facilities..	24	70	10	30		
Heating and ventilation.....	23	68	4	11	6	17
Safety provisions.....	33	99	1	02		
Lack of disturbing noise.....	29	85	2	06	3	09
Job	Good		Fair		Poor	
	No.	Percent	No.	Percent	No.	Percent
Standing more than one half the time..	12	35				
Walking more than one half the time..	6	17				
Sitting more than one half the time..	15	44				

Results of Survey of Working Conditions

The majority of girls were employed in garment, shoe, brush, or light wire-goods factories which were well supervised with the result that safety hazards were negligible. In general, the sanitary conditions of the shops were good. The ventilation, heating, and lighting could be improved. Twelve of the girls reported that their work necessitated constant standing, while other girls in the same room sat continually.

Survey of Working Conditions

The 10 girls employed in the shop were asked to analyze their own jobs, from the standpoint of the health hazards involved, and to give their answers as an example to their colleagues. The results were tabulated as follows:

TABLE VII -- A SURVEY OF WORK CONDITIONS

Shop	No. of girls	Percentage	Rank
Lighting conditions	10	100	1
Working posture	10	100	2
Temperature	10	100	3
Humidity	10	100	4
Exhaust fumes	10	100	5
Exhaust dust	10	100	6
Exhaust noise	10	100	7
Exhaust vibration	10	100	8
Exhaust smell	10	100	9
Exhaust taste	10	100	10

Results of Survey of Working Conditions

The majority of girls were employed in garment shops, where, on light work, the health hazards were well recognized. The results of the survey showed that the health hazards were recognized in general, and that the girls were not. The ventilation and sanitary conditions of the shops were poor. The girls reported that their work necessitated constant standing, while others stated that the work was not continuous.

Summary of the Results in Terms of Health Teaching

The results of these surveys may be grouped into needed habits, attitudes, and knowledge which should become a part of a health program for this particular group of girls.

The following habits are those which should be stressed in a personal hygiene unit: having 9 hours of sleep, frequent bathing, exercise out-of-doors, proper food habits, correct posture, care of the eyes, care of the ears, care of the nose and throat, care of the teeth, and care of digestion and elimination.

The teacher should try to build up these desires with the girls, to work toward the "health ideal", to attend to necessary remedial work early, and to carry the health program into their homes.

Some knowledge pertaining to the following topics should be given as a basis for the formation of proper habits and attitudes: remedial work, body posture, foot posture, skin eruptions, fatigue, indigestion, nutrition, including balanced meals and racial diets, appraisal of their own health assets and liabilities.

The activities pursued in the homes show the types of possible correlations that could be made with similar activities in the home economics classes and related academic classes to teach proper methods of work which bring about better sanitation in the home, conservation of energy, safety, and first aid.

The shop conditions show a need for teaching the girl to recognize the health factors involved in her job, such as proper ventilation, heating, lighting, and general cleanliness. There are opportunities present, also, for the teacher to effect changes of employment to avoid monotony and fatigue. These changes may be brought about by the teacher through the medium of follow-up work.

CHAPTER V

THE COURSE OF STUDY

The two previous chapters were devoted to a study of the health needs of continuation school girls and the interests, capacities and environmental factors that condition their health. In this chapter a course of study in health education will be given for the continuation school girls in home-making classes based on the findings given. The plan of work will include objectives, time allotment, topical outline, suggestive methods, subject matter correlations and subject matter preparations.

OBJECTIVES

A course of instruction in health education for continuation school girls should make provision for:

1. The establishment of needed health habits.
- II. The building of ideals regarding health, beauty, and service for self and others that will result in better living together, worthy home membership, worthy use of leisure, and an ethical character.
- III. The development of individual responsibility for health through a knowledge of individual health assets and liabilities and the relationship which individual health has to community welfare.
- IV. A knowledge of practical facts that relate to growth and personal hygiene with the necessary physiologic background.
- V. A knowledge of practical facts relating to home and community hygiene.
- VI. The development of the necessary knowledge and skill for safety and first aid.

The two previous chapters were devoted to a study of the

needs of the individual child and the individual

community and have shown how these needs are met

in the school. In this chapter a course of study in health education

will be given for the individual child in health education

courses based on the individual child. The aim of such a

course is to give the child a knowledge of health education, to

develop his ability to make decisions and to act on them

wisely.

OBJECTIVES

A course of instruction in health education for children

should give the child the following:

I. The relationship of health to the individual.

II. The influence of health on the individual, family, and society.

III. The role of the individual in the health of the community.

IV. The role of the community in the health of the individual.

V. The role of the individual in the health of the world.

VI. The development of individual responsibility for health.

VII. The development of individual health habits and the

relationship of these habits to the health of the individual.

VIII. The role of the individual in the health of the world.

IX. A knowledge of health facts that relate to health and

the individual's health habits and the relationship of these habits to the health of the individual.

X. A knowledge of health facts relating to the health of the community.

XI. The development of the individual's health habits and the

relationship of these habits to the health of the individual.

XII. The role of the individual in the health of the world.

VII. Some physical exercise.

SUGGESTIVE METHODS

Modern tendencies in educational theories and practice would indicate that successful teaching makes provision for:

1. Activities. The concept back of this thought is that children learn to do by doing. The teacher devises certain activities to be performed by the learner to expedite his learning and make it effective.
2. Freedom of activity according to individual or group pleasures. This theory is based on the fact that children find pleasure in the activity, hence interest and learning will be intensified.
3. Making school life practical. By so doing it is hoped that the children will be equipped with abilities to cope with life situations.
4. Individual differences. It is believed that specialization in industry and social life call for recognition of individual differences. The very nature of the child, as an individual, demands it.

Various suggestive procedures have been used to put these ideas into concrete form, namely, the use of the project method and the system of unit planning.

The project method implies the use of projects. A project is a unit of work intrinsically interesting to a child. By applying the project method to the organization of a course of study is meant that series of groups of optional and alternative units are to be presented, the successful accomplishment of which will result in learning products, and produce the necessary sequence.¹ When possible the activities or projects

¹School Review - Nov. 1932. p. 635.

are initiated by the pupil.

Unit planning implies that the units derived from the analysis of a course are the major objectives of the course. A unit may be regarded as a concept, attitude, appreciation, knowledge or skill which, when acquired by the pupil, will modify his thinking in a desirable way.¹ This kind of planning necessitates sub-concepts or unit assignments.

The term unit assignment is used to designate the suggested or required activities or experiences planned by the teacher to master the unit. When using this method only unit assignment need be placed in the hands of students. This is usually on mimeographed sheets.

The unit assignment may contain:

(1) approach paragraph to stimulate interest and curiosity, (2) a statement of the objective or problem of the unit, (3) short basic questions, (4) necessary explanations, (5) list of difficult words, (6) experiments to be performed, (7) topics for discussion, (8) lists of material and apparatus, (9) list of suggestive references, (10) references to correlations with other subjects.

This plan of unit assignment is followed in the development of the lessons in Chapter VI. When the teacher correlates the unit of work which is being developed with any to the other subjects in the curriculum, the term unit lesson is applied in this study.

This use of unit planning, unit assignment or unit lessons is particularly adapted for use in the continuation school because: (1) it offers promise for provision of individual differences, (2) places emphasis on the activity of pupil rather than upon the teacher, (3) the emotional sets of the students are con-

¹School Review - Nov. 1932. p. 635.

considered, (4) it challenges the bright child, (5) it offers remedial work for the slow, (6) and provides the teacher with organized subject matter where no textbooks are supplied.

TIME ALLOTMENT AND SUGGESTIVE CORRELATIONS

With a time allotment of only 20 minutes weekly in a continuation school for the teaching of hygiene and 25 minutes for the teaching of civics, it is suggested that both of these subjects be correlated, thus making possible a total time allotment of 45 minutes to be used for the development of the lessons outlined. By following the proposed plan the emphasis for the first 20 weeks would then be placed on hygiene with civics correlations, and for the second 20 weeks on civics with hygiene correlations. The division of work to be suggested for the first 20 weeks contains 4 units in 20 unit assignments on general health and personal hygiene and the other 10 unit assignments on community hygiene, all of which are to be supplementary to the civics work being developed for that period. This arrangement makes possible 5 free periods for civics work that is unrelated to hygiene work. Since it may be advisable to include child care work as a supplementary unit to follow the work on home hygiene, 5 unit assignments are suggested at the end.

OUTLINE OF UNIT-ASSIGNMENTS

First 20 Weeks General Health and Personal Hygiene

Physiologic Health

Unit 1 Measurement of Normal Growth and Physical Development

1. The meaning and importance of health; measurement of individual children for height and weight; plan health book.
2. Test eyes and ears; examination of teeth by pupils themselves using mirrors; examination of skin; records in note book.
3. Examination of body posture; examination of foot posture.

Unit 11 Factors Affecting Growth

4. Plan 24 hour schedule; check up on health habits from list of good health habits; plan health graph.
5. Exercise as contributory to growth; circulatory system.
6. Rest as contributory to growth; nervous system; fatigue.
7. Sunlight as contributory to growth; fresh air; respiratory system.
8. Remedial work; eyes, ears, nose, tonsils, adenoids, appendix.

Unit 111 The Relation of Food and Nutrition to Individual Health and Family Meal Planning.

9. Nutrition; its relation to health; classification of foods.
10. Nutrition; minerals; vitamins.
11. Nutrition; food habits; balanced meals.

General Health and Physical Development

Physical Health

1. Measurement of General Health and Physical Development

1. The meaning and importance of health; measurement

2. of individual differences for height and weight; also

Health Index.

3. Food and water; measurement of food by weight

4. Measurement of the body; measurement of weight

5. Measurement of body weight; measurement of food

6. Measurement of body weight; measurement of food

7. Measurement

1. Factors Affecting Growth

1. Food and water; measurement of food by weight

2. Food and water; measurement of food by weight

3. Food and water; measurement of food by weight

4. Food

5. Food and water; measurement of food by weight

6. Food

7. Food and water; measurement of food by weight

8. Food

9. Food and water; measurement of food by weight

10. Food

11. Food and water; measurement of food by weight

12. Food

13. Food and water; measurement of food by weight

14. Food

15. Food and water; measurement of food by weight

16. Food

12. Nutrition: balanced meals; stimulants, tea, coffee, alcohol; narcotics; effect on circulatory system.

Unit 1V Personal Hygiene

13. Meaning of hygiene; general cleanliness; bathing; care of the nails.
14. Care of the hair.
15. Care of the eyes.
16. Care of the ears, nose, throat; avoidance of colds.
17. Care of the teeth; care of digestion; care of elimination.
18. Care of body posture; care of feet.
19. Accidents.
20. Accidents.

Second twenty weeks - Health Correlations with Community Civics

Unit V The Family and Its Relationships Including Child Care

1. Personal background: relation good physical and mental health to happiness; the importance of heredity; the Mendellion experiments with plants 1865, cp. of fundamental life processes of plants and animals, study of graphs of human families.
2. Personal background: the importance of environment, studies of plants showing effects of environmental factors; environmental factors affecting human life.
3. Children in the family; what constitutes good heredity; what constitutes good environmental conditions for the child; how habits are formed; guidance in emotional and moral health of child.
4. Children in the family: medical examination and nursing

service at baby clinics; bathing; cleanliness of clothing; regular routine; fresh air; exercise.

5. Children in the family: review principles of nutrition in foods for young children; scientific feeding; importance of good milk supply.
6. Children in the family: germ theory; ventilation; heating; prevention of children's diseases; common diseases of children, colds; whooping cough; measles; chicken pox; group; bronchitis.
7. Safety in the home; first aid.
8. The family employed: the family finances; a study of budgets; savings; children in industry; effect of unemployment.
9. Use of leisure: play and recreation; family unit; reading; prevailing tendencies in labor laws for more leisure time.
10. The family in the neighborhood: home ownership; locality situation; general sanitation.
11. Nutrition: balanced meals; stimulants, tea, coffee, alcohol; narcotics; effect on circulatory system.

Unit VI Community Hygiene-Correlations with Community Civics

1. Meaning and importance of community health; benefits derived; duties and responsibilities.
2. City Health Department: communicable disease control; immunization; quarantine; water supply; typhoid control.
3. City parks: need for out-of-door recreation; survey of community for available parks.
4. State Department of Health: health literature; mental hospitals; public welfare parks.
5. Federal agencies contributing to community health; health literature; pure food and drugs control.
6. Health of the worker; protection of the worker by law;

conditions of employment.

7. Safety in the shop; how to dress for the job; first aid; survey of health conditions on the job.
8. Safety on the street; cause and prevention of accidents; fire prevention.

SUBJECT MATTER PREPARATIONS

Under this heading will be discussed some of the important aspects in the development of the topics in the outline of the course of study.

Physiologic Health¹

Appraisal of Individual Assets and Liabilities

Any teacher who intends to start a program of health education should have in mind a picture of a healthy child. In "Health Behavior" we find an attempt made to indicate those points by which a person may judge whether or not a child is showing normal healthy growth.²

"It is generally believed that for optimum health, a child should be not more than seven percent under, nor more than fifteen percent over the average weight for his age and height, as expressed in such weight-height-age tables as the Baldwin-Wood tables. Ten percent under weight, or twenty percent overweight is usually an indication of defective nutrition, or other defect.

It is also true that a child may be within the healthy zone of weight for height and age and yet be suffering from malnutrition. Other signs of good nutrition for which the observer should look are firm flesh, covering a moderate amount of subcutaneous fat; good musculature; good posture; good carriage, straight legs (no rickets); soft, clear skin; good color; eyes clear and bright; without fatigue circles; good color in mucous membrane; an air of vigorous vitality; cheerful; interested temperament and attitude; and enjoyment of activity both mental and physical.

A healthy condition of the blood and circulatory system results in good color in cheeks, lips, mucous membrane, lining, and skin covering ear lobes.

Habitual good posture is one of the evidences of healthy

¹A description of good physiologic health is given in Chp. 1 p. 7.

²Wood, Thomas D. and Lerrigo, Marion O. Health Behavior. p. 78-79.

growth. The mechanical elements of good posture may be briefly described as follows:

1. Toes straight ahead.
2. Weight on outer borders of the feet (and not transmitted to the ground through the heels entirely) but lightly on the heels, then instep, then toes; the whole foot touching the floor at practically the same time. The foot should be strong and pliable. The arch should be high enough to admit finger tips to first joint.
3. The knees are straight or slightly bent.
4. The hips forward.
5. The abdomen well held back.
6. The shoulders flat.
7. The head up; neck straight. In this position there is no strain on muscles or ligaments, and the vital organs are so situated as to function most easily and efficiently."

It would be well to have the teacher become familiar with the picture of a healthy organism and healthy personality, also given in Health Behavior.¹ With the help of these indices of good health and the teacher's general knowledge whe may assist the students to make a beginning on an evaluation of individual health assets and liabilities until such time when the work can supplemented by the doctor's examination. The recording of such results in a health record book is one of the best means of stimulating interest in corrective work and habit formation.

Health and Weight

The desire to grow, to approximate the height and weight for their age, is another strong incentive for any group. The monthly weighing gives the girl a chance to prove for herself the relationship between habits and growth. Attention should be drawn to the fact that these working children may be a year retarded in physical attainments.²

According to the Wood-Baldwin table of averages, increase in weight for girls 14-16 years should approximate 8 ounces

¹See p. 7/

²See Chapter 11 p. 21.

per month. The increase in height should be 1.46 inches, and in weight 11.7 pounds a year for girls 14 and 15 according to statistics made by Bird T. Baldwin at the University of Iowa.

The teacher should allow for individual differences due to racial type characteristics. For example, a tall Polish girl of a pronounced lineal build is often slightly under the average standard weight for her age, whereas a short, stocky Italian girl is more likely to be overweight for her height. However, the importance of approximating the weight should be emphasized, and an effort should be made to interest the girl in the study of her daily health habits so that she may do her best to grow both ways. All weighing and measuring should be done carefully and accurately. The weighing should take place about once a month on about the same day, and at the same time of day, and the measuring of height at least twice during the school year, at the beginning of the term and in February. Pupils should be weighed in their indoor clothing, without shoes, coats or sweaters.

Nutrition

Good nutrition is, of course, an important contributory factor to growth. It is of extreme significance, particularly as it relates to children from environmental conditions such as these children have, coupled with the extra burden industry places upon them. Whenever a student shows markedly low vitality, a thorough investigation of her nutritional status should be made on home conditions a program of corrective work outlined with the pupil, taking into ac-

count.¹ Some work should be put upon racial diets in the study of balanced meals. The emphasis should be placed upon fresh vegetables, cereals, milk dishes, and eggs, as the types of foods with which the home generally experiences the greatest difficulty in establishing dietary habits. In this connection also, the cost of relative food values is extremely important. A study of caloric values with these students need be only of an informative nature rather than that for use as working knowledge. Before the work on nutritional information is completed, some time should be devoted to the effects of tea, coffee, alcohol, narcotics, and patent medicines on the circulation and general health of the system.

Experiments with plants, showing the effects of nutrition, fresh air, and sunlight on them, might serve as a comparative

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The White House Conference report on nutrition makes the following statement: "It is interesting to note that all studies of racial diets that have thus far been made indicate a close correlation between the adequacy of the diet, according to modern nutritional standards, and the physical status of the people who are the products of the diet. Whenever the race as a whole shows superior physical development, as indicated by their strength and endurance, their sound, well-formed teeth and bones, and by other measurable signs, an analysis of the typical racial diets reveals an abundance of all the essential food elements. On the other hand, when inferior physical development prevails, particularly as indicated by the prevalence of dental caries, rickets, and other deficiency or defects as found in nearly every country for which adequate data for judging diets are available, it will be observed that the typical peasant diet at its best is usually found to be an adequate one. When, however, the refined foods of modern civilization are made available, the diets are apt to become deficient in one or more essential constituents, with a resulting impairment of the physical status. This is illustrated by races whose diets have thus been changed in their own country, such as the Chinese, the Eskimo, and so forth, and especially by the diets of our foreign population in this country, as compared with their 'old country' diet." White House Conference Publication, Growth and Development of the Child. Part III Nutrition. p. 50.

study of those factors that influence growth.

Health Habits

The establishment of desirable health habits should begin as early in the course as possible. Each child should be asked to make out a 24-hour schedule showing a typical day's division of time. By this means the girl can help to determine her shortcomings in hygienic living. The scoring of each student's food habits at the beginning, middle, and end of the course helps the girl to determine her progress in that field.

Another way in which the student may help to determine her shortcomings is to review a list of desirable health habits from which she may record on an individual graph for weekly check up those habits which need emphasis in her case.¹

A weekly health review is a good way to watch for general cleanliness in each student and for signs of communicable disease. Any negligence should be noted for general discussion or for individual conference work.

Personal Hygiene

The teaching of personal hygiene should be one of the most interesting phases of the work, because of the girl's keen interest in how to improve her personal appearance. Only as much physiologic knowledge as the teacher deems wise or necessary to fix the impression should be presented. Much use of physiologic terms is a waste of time with these students, but the why's of desirable practices should be given to motivate better behavior. Whenever possible, the teacher

¹See appendix for list of health habits p. 18.

should have the pupil demonstrate the activity discussed, namely, the care of the hair, the nails, and the teeth. The hygiene of clothing as well as its suitability for seasonal wear should be a corollary phase of this work.

First Aid

A very effective way for introducing first aid work is to have it brought in at appropriate places, as bandaging with a study of the circulation, or germ study; resuscitation with a study of respiration and circulation. At least two lessons should be given over a consideration of first aid in emergencies and accidents. Such topics as the following might well be considered: fainting, scalds and burns, drowning, cuts, sprains, and fractures. This would naturally include a knowledge of the hygiene of the hands, bandaging, and the making of a first aid kit. The information should be paralleled practice to develop a degree of skill.

Safety Education

Statistics show that accidents are the most outstanding single cause of death in the life of a child. It is above any cause up to the age of 15.¹ Of the 100,000 deaths from accidents in 1929, approximately 1/5 involved the child. This is large considering the intensive work in safety being car-

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Dublin, Louis L. Report of Washington Conference on Child Health and Protection, Washington Daily Supplement, Nov. 1929. p. 21.

ried out in many schools. Dr. Dublin divides these 100,000 accident fatalities in a significant manner when he tells us that 23, 000 are domestic fatalities, 23,000 public accidents, not connected with the automobile while the remaining 31,000 are automobile accidents.

Since the passage of the compensation laws there has been a decided reduction in industrial accidents, but the same cannot be said of home accidents for sufficient attention has not been called to this field. Such facts relating to industrial sanitation and safety hazards should be given to these students which will enable those employed in factories to adjust themselves to factory conditions. The clothing of the job should receive some attention. They should have a knowledge of the laws that have been made to safeguard their interests.

Physical Exercise

Since most of the students attend school for only four hours a week, very little attention can be given to this feature of a health program, but sufficient time should be given to this work to have the students acquire an interest in exercise for recreation. Bounce ball, bat ball, volley ball, curtain ball, captain ball, and ball, and relay races are good games for girls of this age. Dancing for indoor exercise is always acceptable to them. The students may make surveys of the recreational facilities offered them within their neighborhoods for out-of-door and indoor exercise. They may be encouraged to form athletic and social clubs which will help to further their physical education outside of school.

The Healthy Personality¹

It was stated at the outset that health education is concerned not only with the physical health of the child during school life and in later years, but also with the mental, emotional, and social health of the child, both as an individual and as a member of different communal group. This problem of the development of healthy personalities is intimately connected with all subjects of the curriculum, but the study of civics in particular offers the teacher opportunities for setting up procedures for instilling right principles which will make for greater happiness in personal, family and community life. Professor J.J. Mahoney gives the following definition of civic education.²

"Civic education is the sum total of all those specific teachings, activities and procedures that the school may utilize for the purpose of developing those understandings, appreciations, and behavior tendencies that make for better living in large group relationships."

With this definition in mind the procedures given for hygiene teaching for the second 20 weeks are to be correlated with the civics work being presented at that time. A unit of work on the family and its relationships may be correlated very easily with the beginning lessons in community civics. The first 2 lessons on the personal background, which include the relative importance of heredity and environment make an easy transition from the study of personal hygiene. The importance of good mental health and its relation to physical health and happiness is stressed in applications to family relationships. Environmental conditions have often matured the continuation school so that a study of those finer

¹A description of a healthy personality is given in Chapter 1 p.7.

²Mahoney, John J. Boston University 1930. Civic Education.

relationships of family life will not only bring abundant satisfaction to them in making delicate family adjustments for the present, but in establishing ideals for future homes. The class may be organized on the basis of a family group, having the members taking different names and personalities and living in certain neighborhoods. In this way members of the class may introduce problems in their own homes without fear of having the discussions take on a personal nature.¹ The main purpose of such a course would be: (1) to create in the girl a desire to be eager for self-development, (2) to acquaint the girl with the importance of heredity, (3) to have the girl conscious of the influence of environment, (4) to help the girl make more intimate adjustments with her family, (5) to have the girl realize the importance of good mental health and its interrelation with physical health, (6) to improve the individual, family and community life of the future.

Heredity and Environment

A teacher who wished to make her teaching intelligent should know that the growth and efficiency of functions are dependent upon both heredity factors and conditions of the environment as well as upon the manner of living. The use of this knowledge would not only help the teacher to a better understanding of her students but would, if properly organized for presentation to them, be of immense value in helping the students to better living. Some of the most outstanding conclusions on this important subject follow:

1. What every being is and does is dependent upon the constantly

¹Groves, E. R., Skinner E. L., S. J. The Family and Its Relationships. J.B. Lippencott. Philadelphia 1929. Introduction.

interacting factors of heredity and environment. Every thought and action of our lives is influenced by these two factors, the extent of which has not yet been determined.¹

2. To every child is born with certain aptitudes for music, arithmetic, business art, politics, mechanics.¹ He has certain potentialities at birth which will be developed relative to his physical health, coloring and the like. Heredity does seem to determine whether a child is to learn readily or slowly or whether he is likely to be even-tempered and serene or likely to be irritable and easily upset.²

3. Environment as it exists in climate, food, home life, school life, or other state gives the child opportunity to develop what he has. To civilization is given the responsibility of seeing to it that the environment is such that each individual has opportunities to develop the best personality his given abilities permit.³

4. Inheritance decrees that children must differ even though they have the same parents. It decrees that all children to a greater or less degree shall learn from experience.

5. Environment decrees that parents, teachers and others concerned with the child's welfare shall teach from infancy those habits which they wish each child to have according to his own particular needs.⁴

6. Children may inherit bad hereditary tendencies as well as good, i.e., insanity, feeble-mindedness, nervousness, tuberculosis. In many cases where the laws of physiology and psychology are obeyed, a degree of control can be found.⁵

7. Man is subject to the same biological laws as plant and animal

¹Blakeslee, Albert L., Scientific Monthly Dec. 1930.

²Cunningham, Bess. Parents. Sept. 1931.

³Pearse, A. S. Scientific Monthly. Dec. 1931.

⁴Sadler, William S. The American Magazine. Nov. 1930.

Child Care

When the United States Federal Board for Vocational Education analyzed the necessary skills for home-making into five divisions, they gave child care and the rearing of children the major place.¹ Within recent years the need for this kind of education in the school has been growing, resulting in its introduction into the home economics classes through the clothing and feeding phases of child care;² while in the hygiene classes it has been introduced through personal hygiene and a study of diseases.³ Child care is presented to the best advantage if correlations of subject are possible between the academic and vocational departments. The teachers should attempt to train the girls in attitudes rather than skills because the nature of topics limits practice in class. The main purposes to be accomplished are: (1) to awaken in the girls an understanding and knowledge of children, (2) to encourage them to take better care of their younger brothers and sisters, (3) to prepare them for adult living, (4) and to help reduce the infant mortality rate. Through the girl's interest in child care and study of the younger members of her family she may be able to interest her mother to avail herself of services that would be of immense benefit to her family. The girls should be encouraged to take their younger brothers and sisters to the clinic or other health centers to listen, to observe and pos.

¹Home Economics Education. Organization and Administration. Federal Board for Vocational Education. Washington D.C. Feb 1919 p.24.

²The Children's Bureau showed that in the City of Baltimore in 1923 the infant mortality rate for employed mothers for the first month was 77.3 percent, unemployed mothers infant mortality rate for the first month 39.9 percent. Abstract of Summer Conference for Continuation School Teachers, Fitchburg, Mass. 1925. p. 35.

³Crabbs, Leila M. and Miller, Mabel L. A Survey of Public School Courses in Child Care for Girls. Merrill-Palmer School Detroit, Michigan, May 1927. p. 6,7.

sibly report later in class. Those girls having no children to care for may be encouraged to observe and help care for some child of their acquaintance in order to share more intelligently in the work.

Home Hygiene

Since the majority of the girls are actually engaged in housework at present, and will be concerned during a good part of their lives with household activities, such information should be given them in home hygiene which would not be acquired, ordinarily, through incidental learnings, namely, a study of bacteria and manner of infection, proper ventilation, and the health reasons for the prevalence of general sanitary conditions in the home. The arrangement of furniture, color harmonies, general orderliness and attractiveness as they affect mental health might well be included at this time. The immediate rooms in the school building might serve as a point of departure for practice. Safety in the home is an important feature not usually reckoned with. At least one lesson should be given over to its consideration with a review of emergency practices.

Community Hygiene

Through the study of family relationships a wedge has been made into the study of community hygiene. The girl must now be made to feel that upon the individual's responsibility for the maintenance of community health and cooperation with public health officials rests public health. An important feature of this work is to acquaint the student with these agencies, national, state and local, as well as private, that are ready to serve her and her family. This is especial importance as it relates to the younger children in the home, who may receive the benefit of nursing, clinical, and dispensary service. The student should

also realize that regardless of optimum health she may be subject to certain communicable diseases and that it is advisable to use artificial means to bring about immunity. It would be well to encourage the girl to bring home this knowledge, to enlist her parents' cooperation in the fight against communicable diseases by immunization. A study of the health heroes can motivate this work.

Mental Hygiene

There are two outstanding facts that should be remembered in dealing with the problem of mental health. First, in the majority of cases people are born mentally abnormal; they are made that way.¹ Second, prevention of abnormality should begin in childhood if it is to be successful.²

There are some important applications of mental hygiene

¹"People are not born this way (mentally abnormal); they are made this way. The foundation of these types of personality are laid in childhood. One forms mental habits as one forms physical habits. Some are good and some are bad. We take great care in helping the child form good physical habits, the child may develop, although so far as the happiness of the child and its future success in dealing with others is concerned, these are probably more important. Every waking hour the child is reacting emotionally to situations that arise in its environment--in the school, in the home, and on the playground. Through these experiences it forms emotional habits--ways of meeting unpleasant situations, ways of looking at things, ways of feeling about things. These habits tend to become fixed, and if they are bad habits, they lead in adult life to much unhappiness and inefficiency, such as you and I find in our lives because no one helped us in these matters when we were children, or to the warped and twisted and odd personalities about which we have spoken. Sometimes they lead to nervous and mental breakdowns." Frankwood E. Williams, Medical Director, The National Committee for Mental Hygiene, Mental Hygiene and Childhood. New York: Funk and Wagnalls Co., 1924 p. 70.

²"We read of people who 'went suddenly insane,' but no one ever went suddenly insane. There is always a history, often reaching back into childhood, of peculiarity; why, retiring self-seclusion; emotional instability; little peculiarities which were disagreeable enough, but which on one considered serious." Report of Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association 1924. p. 1.

which should be made in the continuation school.

1. Training in physical health habits has a distinct bearing on mental health; particularly is this true in the matter of adequate rest for the continuation school girls.
2. The teacher should keep the pupil from developing a feeling of inferiority. Many of these girls have failed in the regular schools; therefore, a feeling of personal worth is important to them. This means that careful attention should be given to the individual so that she will achieve a degree of success, and that sometimes she gets an honest gauge of herself by failure. The teacher should concentrate her attention on the pupil rather than on the subject.
3. The method which the teacher uses is important. It should be such that it will encourage freedom of expression, concentration of attention and effective attack on problems. "Whole hearted, purposeful activity carried out in a social environment", namely, "the project method" or one based on the principles of the project method promises healthy mental activity.
4. The students should be encouraged to find a real solution to each problem that faces them, and to meet their problems by activity instead of day dreaming. Attention to the present and ignoring the past and future, except as they are related to the present, means the avoidance of worry.
5. The teacher should attempt to train the girls in concentration of attention so as to promote an orderly association of ideas. Unhappiness sometimes comes to students because of inability to work successfully. Dawdling should be discouraged.
6. The occasional over-sensitive, shy and inefficient girl

who comes to the continuation school should be helped to acquire emotional control and overcome her bashfulness so that she may play and work with people more efficiently.

7. The teacher should encourage habits of cooperation in school activities.
8. The atmosphere of the schoolroom should be happy, joyous, and free from nervous strain.
9. The teacher should avoid any course of action which would arouse undesirable emotions. The students should not be ridiculed, shamed or embarrassed. Fear of ridicule often paralyzes effort.
10. It is worth the teacher's while to attempt to understand the emotional instability and independence which characterizes adolescence, and often results in unreasonable behavior. Students of this age are susceptible to direction which is intelligently constructive.

To sum up, habits of intellectual honesty, truthfulness, cheerfulness, unselfishness, helpfulness, sociability, persistence and resourcefulness should be among those habits emphasized.

Social Hygiene

This phase of health education has been widely interpreted and has created diversified opinions as to its treatment in the school curriculum. Its original purpose was to control social diseases. At the recent White House Conference in Washington it was referred to as Parenthood Education, thus covering the field of social education. Some leading authorities to-day believe that the home is the place for this kind of training; while others admit

¹Foerster, F.W. Special Lecturer in Ethics and Psychology at the University of Zurich. p. 12.

this fact to be true but believe that the home has failed. Where leading authorities have referred to the incorporation of social hygiene in the curriculum of secondary schools it has usually been through science courses.¹ Other educators believe that the school approach should be individual in character as the need arises.² For continuation school girls the individual conference with the student, if good judgment demands it, is to be preferred.

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The following statements are taken from the Report of the Advisory Committee on Health Education. Dept. of Interior. Publication Bureau of Education, 1923. p. 22.

"It is important that a certain amount of knowledge regarding sex and social hygiene be properly integrated with other subjects and given to older children but it would be emphasized that the school systems have even a more important task to fulfill and insuring that the lives of children are so filled with normal interests that the abnormal and undesirable are crowded out. If a well rounded and supervised program of exercise and recreation is provided, if physical defects are corrected and good health habits are formed, if the strain of school life is not too severe, and if the school plant is so built and supervised that the children may fully express themselves in work and play, many of the difficulties ordinarily encountered will never arise."

The following quotation, taken from a manual issued by the United States Public Health Service and the United States Bureau of Education, should be carefully considered by those who are interested in social hygiene:

Education in relation to sex is but a phase of character education as a whole. As such, "sex education" means vastly more than instruction concerning sex; it means a comprehensive and progressive process of care, guidance, and example extending over a long period of years, from infancy to maturity.... As a phase of character formation, sex education must include all the instruction and training that may help to form normal and wholesome attitudes and ideals in relation to sex, and to shape conduct in accordance with such attitudes and ideals. Such education must, therefore, be developed as an organic part of the entire educational program.

There are numerous ways of building up fine attitudes, especially is this true in the wise use of literature.¹

Illustrative Material

The teacher should use abundant illustrative material with these students to help fix the impressions whe wishes them to receive. Since no text-books are provided for continuation school pupils, as a rule, the teacher will have to resort to mimeographed sheets or health literature obtained from national, state, private or commercial sources for the necessary reference material.²

Motion pictures and delineascope films which may be obtained from the Massachusetts State Department of Public Health, offer a good means for the motivation or review of the health work presented.³

Summary

The course of study which has been suggested includes aims, time allotment, suggestive matter preparations.

In setting up the content of this course of study the writer planned to bring about for continuation school girls health education which is "the sum of experiences in school and elsewhere

1

Dr. M.A. Bigelow believes in placing the emphasis on scientific, ethical, social and religious education.

"The safest procedure is in cultivating taste for literature that does teach helpful lessons of life. If young people do read books and magazines that seem to stand for certain morals, it is best that teachers and parents should point out the moral interpretations.

Many a great book teaches direct or positive lessons by holding up high ideals for inspiration and imitation but some of the most impressive lessons are in negative form especially in fiction that deals with the tragedies of life."

2

See appendix p. 25 for lists of reference books, pamphlets, charts, and films which may be used to supplement the work outlined.

3 ³ Ibid.

which favorably influence habits, attitudes and knowledge of individual and social worth."¹ The following experiences have been suggested as a means for making possible the health education desired:

1. Appraisal of individual assets and liabilities for the purpose of improving general health and having necessary corrective work done.
2. Individual check up on needed health habits.
3. Weekly inspection for cleanliness and signs of communicable disease.
4. Use of the height-weight index as a measurement of growth.
5. Acquisition of knowledge relative to the factors influencing growth.
6. Acquisition of knowledge relative to nutrition.
7. Acquisition of knowledge relative to personal hygiene.
8. Acquisition of knowledge relative to heredity and environment.
9. Acquisition of knowledge relative to community hygiene.
10. Acquisition of knowledge relative to safety and first aid.
11. Acquisition of knowledge relative to mental health.
12. Carrying the health program into the home and into the community.
13. Use of health agencies in the community.
14. Participation in physical exercises.
15. Participation in social clubs.

The methods and subject matter suggested are planned throughout to protect and improve the mental, spiritual, emotional, and social health of the continuation school girl.

¹Report of Joint Committee on Health Problems in Education of the National Educational Association and the American Medical Association, 1924, p. 23.

CHAPTER VI
EXPERIMENTAL UNITS OF WORK
IN
HEALTH EDUCATION
FOR
CONTINUATION SCHOOL GIRLS

The first 4 units of work on general health and personal hygiene which have been suggested on the course of study outline on p. 42 Chapter V for the first 20 weeks have been worked out in detail in this chapter. A few suggestions for correlations in civics, English and arithmetic have been made for the benefit of the teacher who wishes to plan her work in unit lessons.

Unit 1. Measurement of Normal Growth and Physical Development.

Lessons 1-4 in the outline p. 42

1. Objectives

General

To learn how to measure normal growth and physical condition.

Specific

1. To know how to evaluate the condition of teeth.
2. To know how to use the height-weight age index of growth.
3. To know how to test eyesight and hearing.
4. To know how to make and diagnose foot-prints.
5. To know how to evaluate good posture.
6. To know that eruptions of the skin indicate abnormal conditions.
7. To form an opinion of the health of the continuation school student based upon above observations.

8. To form desirable attitudes toward remedial work.

9. To encourage the formation of needed health habits.

11. Suggestive Problems:

General

Am I as healthy as nature intended me to be?

Specific

A. What are the qualities which typify a healthy girl?

B. In what condition are my teeth?

C. Do I weigh and measure what a healthy girl of my height and age should weigh and measure?

D. Is my eyesight normal?

E. Is my hearing normal.

F. Have I an abnormal skin condition?

H. Have I normal foot posture?

111. Suggestive Procedures and Activities:

A. Picture of a Healthy Child

Picture of healthy girls are shown, i. e. 4H girls who have won health prizes.

Discuss qualities which typify a healthy, normal child, i. e. teeth, posture, nutrition, etc. and those intangible qualities of happiness, abounding energy, and a healthful attitude toward school work and recreation.

List those evidences of normal development, namely:

- (a) The condition of the teeth and skin.
- (b) Visual and auditory acuity.
- (c) Development in height and weight with respect to age.

To the Board of Directors of the

Company of the State of New York

and to the stockholders of the

Company

of the State of New York

and to the

Board of Directors of the

Company of the State of New York

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and to the stockholders of the

Company of the State of New York

(d) The condition of the foot as measured by foot-prints.

(e) The general structure of the body indicated by posture.

B. Examination of Teeth

Distribute to each member of the class her own physical examination card with the condition of her teeth as reported by the doctor, if she were at school the previous year. Discuss how the notations are made.

Each pupil examines her teeth with aid of mirror to determine number and condition, and to compare the result with the record found on health card. Each pupil estimates in per cent the number of teeth perfect. Each pupil evaluates the condition of her teeth according to the scoring scheme used on the card.

C. Weighing and Measuring

Demonstrate the correct way of weighing, measuring. To measure height, affix to the wall a yard stick or Henryson's Measuring Chart.

Choose team captains. Have one of these captains assume correct position for being measured, i. e. both heels touching the wall, head up, chin in and back of head touching the wall also. Take a square or chalk box or other object having two flat surfaces at right angles to each other and slide it down

- (b) The condition of the foot as measured by foot-galata.
- (c) The general appearance of the body indicated by posture.
- (d) Examination of teeth.

Disturbance of each member of the class has been given physical examination and also the condition of the teeth as reported by the doctor. It was found that the majority of the class have the condition of the teeth as follows:

Each pupil examines her teeth with a mirror and determines whether any condition, and so determines the results with the second round of dental work.

Each pupil determines for her in the light of each member. Each pupil examines her teeth and determines of her teeth according to the following scheme used on the day.

2. Weighing and Measuring

Describe the correct way of weighing, measuring, to measure weight, etc. to the wall and stick on the wall a measuring line.

These two systems have one of these systems as a standard position for being measured, i. e. both heels touching the wall, head up, chin in and back of head touching the wall also. Take a square or small box or other object having two flat surfaces at right angles to each other and slide it down

lightly upon the pupil's head. Read off from the scale the height of the individual in inches. Let the other captains measure each other in turn so that they become familiar with this procedure and so that the class may see that they know how to do it.

Describe how to use the scale for weighing. Insist on a uniform position on the scale, i. e. both feet squarely in the center of the platform, body erect, and hands at the sides motionless. Variations of $\frac{1}{2}$ to $1\frac{1}{2}$ ounces will otherwise result.

Train captains as in the case of measuring. Have captains measure their own group and check the work of another captain. Pupil will record on her own card. An official class recorder enters each person's record for that particular group.

Teacher discusses four principle causes which interfere with the growth of young children:

- (1) Physical illness, such as sore throat, cold, or other communicable disease.
- (2) Physical defects such as infected tonsils and adenoids, and decayed teeth.
- (3) Poor habits of living such as improper food, insufficient rest, etc.
- (4) Emotional disturbances caused by unhappy home conditions, unsatisfactory school life, and any other environmental conditions which tend to disturb emotional stability.

directly upon the patient's head. Lead off from the scalp the height of the individual in inches. For the other electrode measure each other in turn so that they become familiar with this procedure and so that the class may see that they know how to do it.

Describe how to use the scalp for weighting. Insert on a uniform position on the scalp, i. e., both feet, especially in the center of the electrode, body erect, and hands at the sides motionless. Variations of 5 to 15 inches will otherwise result.

Brain capacity as in the case of measuring. Have electrode measure their own group and check the work. It is essential that they will record on their own card. An official class recorder enters each person's record for that particular group.

Examine distances from principle areas which illustrate with the growth of young children.

(1) Physical fitness, such as arm length, width, or other comparable measure.

(2) Physical defects such as enlarged tonsils and adenoids, and enlarged teeth.

(3) Four kinds of living such as improper food, insufficient rest, etc.

(4) Emotional disturbances caused by unhappy home conditions, unsatisfactory school life, and

any other environmental conditions which tend to disturb emotional stability.

D. Eye Test

The acuteness of sight is another index of the normal development and maintenance of the body. Because of our habits of living the eyes are subjected to greater strain than any other sense organ, consequently any method of determining their condition will stimulate interest in their proper care.

Use the same class organization and procedure as in the preceding work. Instruct the team captains in the technique of the testing and let them measure the individuals in their groups. Follow the directions given on the Snellan Chart for the testing of eyes. Select an official recorder for this activity and of the ones which follow, who will function in exactly the same manner as the weight recorder.

When reading the chart the pupil holds a small card in front of one eye, the card resting against the nose so as to completely cover the eye but not resting against the eyeball. Both eyes are kept open. One eye is tested at a time. If the pupil wears glasses she is tested with her glasses on.

E. Hearing Test

To test the hearing of the class line up five pupils at a time, twenty feet from the person who is to conduct the test. Give each pupil a pencil and a small pad of paper where she writes her name. Let the group to be tested face so that the right ear is toward the tester with space enough between to write independently.

The examiner of sight is another factor of the overall development and maintenance of the body. Because of our habit of looking the eyes are subjected to greater strain than any other sense organ, consequently they need to be kept in a healthy condition with suitable exercises to prevent the sight power from becoming weak.

Use the same class organization and procedure as in the preceding work. Instruct the class carefully in the technique of the test and let them measure the individuals in their groups. Follow the instructions given on the English Chart for the testing of eyes. Select an individual reader for this activity and of the ones which follow, and still the same in exactly the same manner as the weight measure.

When reading the chart the pupil holds a small card in front of one eye, the card reading against the nose so as to completely cover the eye but not reading against the eyeball. Both eyes are kept open. One eye is closed at a time. If the pupil wears glasses and is tested with her glasses on.

B. Hearing Test

To test the hearing of the class line up five pupils at a time, twenty feet from the person who is to conduct the test. Give each pupil a pencil and a small card of paper with the written word on it. Let the group be tested face so that the right ear is toward the teacher who speaks enough between to voice independently.

F. Skin Examination

Introduce by a general discussion of the function of skin. The four conditions which make themselves evident by eruptions and rashes on the surface of the skin are:

- (1) digestive upsets.
- (2) general systematic debility.
- (3) uncleanliness.
- (4) specific infection of the skin.

G. Examination of Body Posture

Teacher follows the same procedure as for other tests given. Show captains proper posture before the class. These in turn rate members of their group a, b, c, d, according to schedule each girl has in her notebook.- See appendix p. 15 for sample posture card for note book. Teacher follows the outline for good posture given on p. 43 of Chapter V.

H. Foot Posture Examination

It is possible to take footprints in the classroom by the teacher, but it is more desirable that this be done by the Department of Physical Education in connection with their work because any remedial measures which may grow out of this work will have to be done by them.

IV. Suggestive Correlations

Civics - Discuss the following quotations:

English - " " " " "

1. "A sound mind in a sound body.
2. "A perfect woman, nobly planned,
To warm, to comfort and to command;
And yet a spirit still, and bright
With something of angelic light."

3. " You had better give your best
Act your best today;
For today is the sure preparation for tomorrow
And all the other tomorrows that follow."- Martineau
4. Health Creed. Massachusetts State Department of
Health.

Arithmetic

1. Find the average weight of class
 2. Theoretical average
 3. Percent of pupils varying above and below the average
 4. Average score of mouth conditions
 5. Theoretical average
 6. Percent of pupils having carious permanent teeth
 7. Percent of pupils having pathological teeth
 8. Percent having visual defects
 9. Percent having auditory defects
 10. Percent having foot defects
 11. Percent having posture defects
 12. Percent having skin eruptions
- V. Reference and Illustrative Material
- See appendix p. 25.

3. "You will find this very easy"

and your best friend

For today is the anniversary of your birth

And all the other children that follow - "Merrill"

4. Merrill Green, Massachusetts State Department of

Health

Anthropometric

1. Find the average weight of class

2. Anthropometric averages

3. Percent of pupils varying above and below the average

age

4. Average score of month conditions

5. Anthropometric averages

6. Percent of pupils having various permanent defects

7. Percent of pupils having psychological defects

8. Percent having visual defects

9. Percent having auditory defects

10. Percent having taste defects

11. Percent having motor defects

12. Percent having skin eruptions

13. Reference and illustrative material

and appendix p. 22.

Experimental Units

Unit 11. Factors Affecting Growth

Lessons 4-9 in the outline p. 42.

1. Objectives:

General

To know some of the factors affecting normal growth of the body.

Specific

1. To know that regularity of certain habits contribute to growth.
2. To know how to make and use a 24-hour schedule.
3. To check up on needed health habits.
4. To recognize the importance of rest.
5. To recognize the importance of exercise, sport and play.
6. To know how sunlight affects the body.
7. To know what physical defects impair health.
8. To instill the desire to achieve further growth and better health.

11. Suggestive Problems:

- A. What is my usual twenty-four hour schedule?
- B. What new health habits should I form and what old health habits should I continue to practice more systematically?
- C. What effect does exercise have on my growth?
- D. Why should I receive about 9 hours of sleep daily?
- E. How does sunlight affect growth?
- F. How do physical defects affect growth?

111. Suggestive Procedures and Activities:

- A. Twenty-four schedule.

Introduce by reviewing some of the factors in-

Lesson 1-1 is the outline of the

I. Objectives:

General

To know some of the factors affecting growth

Outline of the body

Specifics

1. To know the relationship of certain factors

contribute to growth

2. To know how to make and use a 24-hour schedule

3. To check up on needed health habits

4. To recognize the importance of rest

5. To recognize the importance of exercise, sleep

and play

6. To know how sunlight affects the body

7. To know what physical factors affect health

8. To install the habit of making further study

and better health

II. Suggestive Procedures:

A. What is a usual twenty-four hour schedule?

B. What new health habits should I form and what

old health habits should I continue to practice

more systematically?

C. What effect does exercise have on my growth?

D. Why should I receive about 8 hours of sleep each

day? How does sunlight affect growth?

E. How do physical factors affect growth?

III. Suggestive Suggested Activities:

A. Twenty-four schedule

Introduced by reviewing some of the factors

volved in the growth of plants.

List the activities in which the pupils engage during the entire day and describe activities.

List on the board a 24 hour schedule and have different pupils fill in their activities.

Twenty-four hour schedule

1. Method of awakening....Alarm clock, called by family, etc.
2. Time of rising.
3. Time for dressing... toilet.
4. Time of breakfast....items and amount, where served, who present.
5. Distance to school....walk, ride.
6. Morning school program...time of each subject.
7. Time of lunch period,..how long, items in lunch.
8. Afternoon school program.
9. After school activities...time of each.
10. Time of dinner...items and amount, where served, who present.
11. Activities after dinner...time spent on each, when.
12. Preparation for bed...bathing, clothing.
13. Description of room...ventilation, sleep alone, etc.
14. Time of retiring.
15. Hours of activity during the day.
16. Hours of sleep that night.

As each pupil completes her schedule, let her analyse it, and see if it reflects a desirable regularity of certain habits which are essential to growth.

1. Regularity of hours of rest...9-10 at night.

2. Regular meal intervals.
3. Enough time out doors.
4. Frequent bathing.
5. Regular bowel evacuation...at least once daily.

B. Individual Health Habits

Discuss the possibility of measuring the effect of these habits by changing the daily schedule and observing changes in weight at the regular monthly weighing period. If this is done a gradual appreciation of the effect of simple habits on growth will result. Teacher uses this schedule for health advice. Students also use wall chart to check needed health habits.---See appendix for the wall chart p. 18.

C. Exercise

Teach pupils to locate the pulse in the forearm and note rate of beating while class is quiet. Members of the class may be assigned some activity to continue for two or three minutes and the pulse rate may be noted after this exercise. Activities should be used which represent as many types of out door exercise as possible, such as running, rowing, throwing a ball, walking, swimming or playing tennis. These motions may be mimicked and done lightly without disturbing classes near by. Pupils are to notice pulse rating after exercise.

Results

1. Increased Circulation

Explanation: The heart beats more often in order

to cause blood to flow faster. It may be explained here that the blood stream carries the food supply to the cells. During activity the cells use more food in order to do their work; thus the increased blood stream flow brings food to them in greater quantities.

Deeper breathing

Explanation:

Increased flow of blood necessitate increased amount of oxygen intake to make possible greater combustion in the cells.

D. Rest

Any simple activity continued over a period of time results in fatigue, "that tired feeling."

Select some activity such as raising arms sideways with heavy weight held on palm. Hold out-stretched as long as possible. Note time held. Let arm fall and at end of five seconds repeat test, noting time. Let arm rest five minutes and repeat experiment. Is this period long enough to allow the muscles to recover from fatigue?

In a manner similar to this our daily work is fatiguing. The night's rest should be sufficient to enable us to recuperate as did the tired arm. Do you get enough rest to do this. What is enough for you?

Discuss importance of sufficient rest for working children; importance of rest for people below par and for convalescents.

to cause blood to flow faster. It may be that
the blood vessels are dilated and the blood
flows more easily in the veins. During activity the
cells are more food in order to do their work.
Thus the increased blood stream flows brings food
to them in a faster quantity.

Lesson Worksheet

Worksheet

Increased flow of blood necessitates increased
amount of oxygen intake to make possible greater
metabolism in the cells.

D. Rest

Any single activity continued over a period of time re-
sults in fatigue. "That tired feeling."

Before some activity such as walking runs always with
heavy weight held in hand. Note discomfort as long
as possible. Now stop. Let arm fall and let end
of five minutes rest. Repeat this. Let rest
five minutes and repeat experiment. Is this period long
enough to allow the muscles to recover from fatigue?
Is a longer period to take our daily work is fatiguing.
The night's rest should be sufficient to enable us to
renew ourselves as at the first day. Do you get enough rest
to do this. What is enough for you?

Discuss importance of sufficient rest for working child-
ren; importance of rest for people before and for non-
volunteers.

E. Sunlight

Discuss effect of sunlight on growing plants from the standpoint of general observation.

Tell of animals who pull off bandages to let sun at cuts. Make other comments from observations regarding young children who have had much freedom in the sunlight.

Discuss with the class the use of artificial sun-lamps. Point out that sunlight is best, and free. The ultra-violet rays can be generated only by carbon arc or mercury vapor lamps which are costly; the violet ray lamps and machines sold in drug stores do not give ultra-violet light and have not therapeutic value other than the heat they generate.

F. Reason for Remedial Work

Discuss with class their experiences resulting from remedial work on eyes, ears, nose, tonsil, adenoids and appendix.

Teacher gives the following information relative to infected tonsils because of misapprehension concerning them:

"Bacteria are present in such great numbers that the tonsils are not able to destroy them all. Some of the bacteria penetrate the tissues and the tonsils become infected."-O'Shea and Kellog. Frequent colds may cause tonsils to become enlarged. Sometimes the bacteria may creep down into little pockets in the tonsils. They breed there and fill these pockets with pus. Sometimes so many bacteria cluster upon the tonsils that the tonsils are overwhelmed and lose

their power to destroy bacteria. The tonsils then become inflamed and enlarged. Bacteria and pus may be carried to the lymph glands of the neck, to the lungs, and to other parts of the body.

Discuss why adenoids and infected tonsils should be removed.

a. What adenoids are:

Adenoids are growths of tissue and look a little like a small cauliflower colored red. They grow in the back part of the throat where the passage from the nose joins the throat.

When tissues are enlarged or diseased, as in enlarged or infected tonsils, health is seriously affected.

b. Such enlarged tissues stop the air passages from the nose and make the child breathe through his mouth.

c. Poisons poured into the blood stream from diseased tonsils prevent the blood from making the fullest use of nourishing foods that are eaten.

d. Mouth breathing causes the air to reach the lungs without warming up. This results in colds, bronchitis and often pneumonia.

e. Sleep is disturbed through inability to breathe naturally.

Tonsils or adenoids should be removed when re-

which power is necessary to maintain the... The... and...
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commended by a physician. "To breathe well is to live well - to live longer and better."

IV. Suggestive Correlations:

Civics

Discuss the City Health Department of Health, including dispensaries for remedial work.

English

The following quotations may be written on the board for suggestive material for oral composition work.

"Healthy and cheerful he wakes from his
repose,

Breasts the keen air and carols as he
goes."

- Goldsmith.

"The wise for cure on exercise depend."

- Dryden.

"Nothing is so strong as gentleness;
Nothing so gentle as strength."

- Francis DeSales.

"I know what pleasure is, for I have done
good work."

- Robert Louis Stevenson.

"Work is kind to its friends and harsh to its
enemies. It pays the man who dislikes it
his exact wages, and they're generally very
small; but to the man who shines up to it,

represented by a quotation. "The business will be

as live well - as live longer and better."

IV. Suggestive Formulations:

Notes

Notes on the life of the business of the

including discussion for essential work.

English

The following quotations are to be written on the

board for suggestive material for oral composition

work.

"Health is the greatest of all things for the

body,

because the body is the basis of all

work."

- Hippocrates.

"The wise man does not exercise his body."

- Pythagoras.

"Nothing is so good as the body."

Nothing is so good as the body."

- Lucius Annaeus Seneca.

"I know that pleasure is, for I have known

good work."

- Robert Louis Stevenson.

"Work is kind to the body and good to the

soul. It gives the man his health and

the great wages, and that is the best of all

things; but to the man who knows no better,

there is money, satisfaction and fun."

- George H. Lorimer.

"Labor is good for the body and better for
the soul."

- Robert Hichens.

"The secret of happiness is not in doing what
one likes, but in liking what one has to do."

- Barrie.

V. Reference and Illustrative Material

See appendix 25.

Suggestive Courses of Study in Health Education for Continuation School Girls in Home-Making Classes.

Experimental Units

Lessons 8-11 in outline.

Unit 111. The Relation of Food and Nutrition to Individual Health and Family Meal Planning.

1. Objectives:

Major -

To know the relationship of food to growth and
general health.

To know how to plan and choose balanced meals for
self and family.

Minor -

1. To develop better food habits.

2. To know the general functions of food in the
body and their classification.

3. To know the specific functions of particular
foods.

There is some, according to the

George A. Latham.

There is good for the body and better for

the mind.

Recent research.

"The secret of happiness is not in doing more

and less, but in doing what one has to do.

— quote.

7. Reference and Illustrative Material

See especially 22.

Suggestive Sources of Study in Health Education for Children

Health Unit in Home-School Program.

Experimental Unit

Lessons 8-11 in outline.

Unit 11. The Relation of Food and Nutrition to Individual

Health and Family Well-Being.

1. Objectives:

Major -

To know the relationship of food to growth and

general health.

To know how to plan and choose balanced meals for

self and family.

Minor -

1. To develop better food habits.

2. To know the general function of food in the

body and health education.

3. To know the specific functions of nutrients.

Food.

4. To know the optimal diet for a girl 14-16.
5. To know what individual food habits need to be improved or changed.
6. To know whether racial dietary menus are well balanced.
7. To know why stimulants are not good foods.

11. Suggestive Problems:

General

How can I improve my food habits and thereby influence those of my family so that better health will result?

Specific

- A. Do I have good food habits?
- B. What is the advantage of an optima diet?
- C. Why do we eat?
- D. What are my caloric requirements for a day?
- E. What balanced meals can I plan that will give me the most return for my money?

111. Suggestive Procedures and Activities.

Discuss the fact that all human things grow through changes brought about in the body by food. Bring out the fact that food will supply needs of growth first and health will suffer if insufficiency is present.

Teacher places on board the following outline for discussion.

Functions of food are to:

- a. Provide food and growth.
 - b. Provide fuel and energy to keep body warm.
- Compare human body to a steam engine. Body may store food.

4. To know what individual food habits need to

be improved or changed.

5. To know whether mental dietary needs are

well balanced.

6. To know why stimulants are not good foods.

11. Suggestive Problems:

General

How can I improve my food habits? Can I

influence those of my family to eat better foods?

Will results

Specific

1. Do I have good food habits?

2. What is the advantage of an apple daily?

3. Why do we eat?

4. What are my vitamin requirements for a day?

5. What balanced meals can I plan that will give

me the most pleasure for my money?

12. Suggestive Problems and Activities

Discuss the fact that all human things grow through

changes brought about in the body by food. Bring out

the fact that food with supply needs of growth first

and health will follow if nourishment is present.

Teacher places on board the following outline for discussion.

Functions of food are to:

1. Provide food and energy.

2. Provide fuel and energy to keep body warm.

3. Provide human body to a pleasant life.

4. Provide food.

c. Repair different parts of body and build.

Human body wears out but repairs itself while running. Child needs an increased of cells to provide for his growth. Growth takes place through building of cells.

d. Keep body in running order. Avoid accidents to body by careful regular repair work.

Girl has control of a machine within her hands far more delicate than that of an ordinary machine. Requires intelligence and skill to run it.

Pass out to pupils mimeographed sheets with following information:

Mimeographed Sheet for Pupils.

Food ElementsFunction in the Body

1. Carbohydrates
 - a. Sugars
 - b. Starches

Supply the body with heat and energy

2. Fats
 - a. Animal
 - b. Vegetable

Same as Carbohydrates

3. Proteins

Build and repair body cells

4. Minerals

Build and harden bones and teeth and provide essential materials for the blood

5. Vitamins

Promote growth and health

6. Water

Help to regulate body processes.

Démonatration

1. Show fuel value of carbohydrates, fats and proteins under pan.
2. Burn fruit juices and the whey of milk to dryness to show mineral.

Roughage

In addition to the food elements which should be represented

in the diet each day, roughage is also needed to stimulate the activity of the stomach and intestines, and to enable the colon to dispose of body refuse. The materials are furnished by cellulose, an indigestible fiber substance, which is found in fruits, vegetables and whole grains.

Vitamins: Protective Foods

Because milk, eggs, leafy vegetables and fruits have such a haigh vitamin content and are so essential in the diet, they have been termed protective foods, and should be included in the daily diet. Every growing boy and girl needs approximately one quart of milk in some form each day, two or three green leafy vegetables besides potato, and fruit at least once a day.

Some of the children living in northern countries are deprived of the ultra-violet rays of the sun during the winter months. In order to protect the growing bones of such children, suitable amounts of cod liver oil should be given at regular intervals. This oil contains ready made the substance which is formed in the skin or in foods, when the latter is irradiated with ultra-violet light. It is a chemical substitute for sunlight. Even adults are benefited by small doses of cod liver oil at regular intervals during the winter months.

Stimulants

Certain food habits may interfere with growth. Substituting stimulants such as tea and coffee for food is a harmful habit, especially for young and growing children. Pictures of animals

show a decided difference in the growth of two animals when one is fed on bread and coffee and the other on bread and

In the first case, the growth is slow and the plants are small. In the second case, the growth is rapid and the plants are large. In the third case, the growth is intermediate and the plants are of intermediate size. In the fourth case, the growth is very rapid and the plants are very large. In the fifth case, the growth is very slow and the plants are very small.

Vegetative Propagation

Vegetative propagation is a method of asexual reproduction in which new plants are produced from the vegetative parts of a parent plant. This can be done in several ways, including cuttings, layering, and grafting. Each method has its own advantages and disadvantages, and the choice of method depends on the species of plant and the desired characteristics of the new plants.

One of the most common methods of vegetative propagation is cuttings. This involves taking a piece of a plant, usually a stem, and planting it in a suitable medium. The cutting will then grow into a new plant. Layering is another method, in which a branch of a plant is bent down to the ground and covered with soil. The branch will then root and grow into a new plant. Grafting is a more complex method, in which a piece of one plant is joined to the stem of another plant. The two plants will then grow together as one.

Conclusion

Vegetative propagation is a useful method of reproducing plants, especially those that are difficult to reproduce from seed. It allows for the production of plants that are genetically identical to the parent plant, which can be desirable for certain purposes. However, it also has some disadvantages, such as the fact that it does not allow for genetic variation. Therefore, it is important to choose the right method of propagation for the right plant.

milk.

Both coffee and tea are sometimes given to convalescent children where a mild heart stimulant is needed. This is generally given under a doctor's supervision and is used in place of some other stimulant and not as a substitute for food.

These beverages are only flavored water containing mildly stimulating substances known as caffeine and tannic acid in coffee, and theine and tannic acid in tea; they do not supply elements necessary for growth.

If coffee is prepared by the drip method and tea is permitted to steep not longer than 3 to 5 minutes only small amounts of this stimulating substance is drawn into it.

Minute quantities of theobromine, another stimulating material is found in cocoa. However, according to Dr. McCollum of John Hopkins University, large quantities of cocoa would have to be consumed to get enough of the theobromine to affect the growth of a child.

Suggestive Food Experiments

- a. Fuel value of different foods can be made by the burning of these substances under a home-made calorimeter and measuring the difference in the temperature rise caused by the different foods.

The calorimeter consists of a square piece of board, 4 nails and 2 tin pie plates. Secure from the wood working department a board about 1" thick and 6" on a side. Drive four nails, one in each corner of the board, so that one of the

pie plates may be supported by the nails, about one and one-half inch above the surface of the board. This constitutes the calorimeter.

When ready to make a test put 100 to 200 cc. of water into the pie plate, take the temperature of the water accurately with a centigrade thermometer, and then cover the dish with the other pie pan. Saturate a small piece of newspaper, about 2" square with one-half teaspoonful of kerosene, ignite and burn under the calorimeter. When the kerosene and paper are completely burned, remove cover of pie pan and take temperature of the water. The increased temperature is due to the heat generated by the burning of the kerosene and paper.

Now to make the test of fuel value of foods, weigh out five gram-portions of lard, butter, sugar, starch, grated cheese and dried beef. The procedure is the same as before. Prepare kerosene soaked paper, add it to the food to be studied, measure the temperature of the water in calorimeter before and after ignition of the food fuel.

The kerosene paper is added to insure burning. Of course it is evident that the same amounts of paper and kerosene must be used in each case.

The sugar can be made to burn if it is thoroughly pulverized first. In the case of the dried beef, it is necessary to dry it to crispness in an oven first, then pulverize it and burn it.

b. Roughage

Place a heaping teaspoonful of rolled oats in a cup and

the glass was suspended in the water, about one and
one-half inch above the surface of the water. The tem-
perature was maintained.

When ready to make a test put 100 to 200 cc. of water into
the glass, take the temperature of the water accurately
with a centrifugal thermometer, and then cover the glass with
the other glass. Remove a small piece of newspaper,
about 2" square with one-half centimeter of extension,
lightly and then under the thermometer. When the water
and paper are completely heated, remove cover of the pan
and take temperature of the water. The increased temper-
ature is due to the heat generated by the burning of the
hydrogen and paper.

How to make the test of fuel value of food, etc. etc.
First portion of food, butter, sugar, starch, dried cheese
and dried beef. The procedure is the same as before. The
food is placed in the glass, add it to the food in an alcohol,
measure the temperature of the water in centrifugal before
and after ignition of the food fuel.

The response paper is added to lower burning. Of
course it is evident that the same amount of paper and
hydrogen must be used in each case.

The water can be used to turn it is thoroughly
submerged first. In the case of the dried beef, it is
necessary to dry it to dryness in an oven first, then
submerge it and burn it.

5. Hydrogen

First a sample (hydrogen) of fuel is in a cup and

add just enough water to cover it. Allow it to stand for 15 minutes. Pour the mixture into a cheesecloth and press out the moisture and much of the starch. Rinse the starch out of the cloth as thoroughly as possible by holding it under running water.

Examine the tough cellulose remaining in the cloth. It is possible to do the same with any cooked vegetable or fruit.

A. Food Habits

Pupils list food eaten for a day and then compare result with the food habits score card, i. e.

<u>Milk</u> - 1 qt, daily	
1 pt. daily	
<u>Vegetables</u> - 3 or more servings daily,	
1 of which is potatoes.....	20
2 or more servings daily 1 of which	
is potatoes.....	15
<u>Greens</u> - eaten at least twice a week.....	5
<u>Fruit</u> - (Tomatoes may be classes as	
fruit) Two or more servings daily.....	20
One serving daily.....	15
<u>Fresh fruit</u> eaten daily.....	5
<u>Cereals</u> - (may be breakfast food or bread)	
Wholegrain cereals twice daily.....	20
Wholegrain cereal once daily.....	15
<u>Water</u> - 1 pt, or more daily.....	10
1 pt. daily.....	5
Total Credits.....	
Deductions -	
Use of any tea or coffee.....	5
Meat more than once daily.....	10
Sweets (between meals and just	
before a meal).....	10
Total deductions.	
Final Score.	
See appendix p. 16 for other food score card.	

B. Optimal Diet

Discuss the merits of foods on score card.

Display all foods required for the three meals of a day. (Use Lydia Robert's paper samples of foods- University of Chicago Book Store).

List those foods most commonly used in the score card.

Discuss the optimal diet for a girl 14-16 and purpose for which it was suggested. Girl copies it in note book.

C. Caloric Requirements

Discuss with students meaning of calories and how to find own requirement. Age times number of calories per pound for age.

Distribution of calories in moderately priced dietary.

- A. Foods from cereal group...20-25% total calories
- B. Milk.....25% of total calories
- C. Fruits and Vegetables.....15-20% of total calories
- D. Fats and Oils.....10-20% of total calories
- E. Sugars.....10-12% of total calories
- F. Meat, eggs.....8-15% of total calories

D. Balanced Meals

Discuss dietary food characteristics of the nationalities represented in the class. Plan balanced meals for a day for a student. Student having best set of meals becomes hostess; the three girls having the best three sets of meals become hostesses if the students are divided into groups, or the whole class may prepare one or more dishes, until all the dishes of a particular meal have been prepared. The teacher should use discretion as to whether or not one dish or a whole meal should be prepared.

Plan representative racial diets with view to serving in class.

that these foods are commonly used in the home diet.
 Because the weight limit for a 150 lb. man is 150 lbs.
 the diet is not restricted. This diet is in fact

very

2. Caloric Requirements

Students with students working on calories and how to
 find an equilibrium. The class number of calories
 per pound per day.

Classification of calories is not necessarily related to the

1. Food from animal sources.....100-150 of total calories

2. Milk.....100-150 of total calories

3. Fruits and vegetables.....100-150 of total calories

4. Eggs and oils.....100-150 of total calories

5. Grains.....100-150 of total calories

6. Meat, eggs.....100-150 of total calories

3. Caloric Needs

Students should have a knowledge of the relationship

represented in the diagram. This data was needed for a

for a student. Student having been out of school

because of the illness having the last three years of

study because of the illness of the student and divided into

groups, of the whole class the groups are as follows:

will all the names of a particular class have been

presented. The teacher should be distributed as to

whether or not one dish or a whole meal should be

used.

This represents a total of 1500 to 2000

in class.

IV. Suggestive Correlations

Civics

Study federal, state and city supervision of foods.

Arithmetic

Problem in cost of foods used in class menus.

Problem on proportion of income to be used for food.

English

Discuss the source of various kinds of bread flour,
using the poem as a point of departure.

Bread

"Back of the bread is the snowy flour
Back of the flour is the mill,
Back of the mill the growing wheat
Nods on the breezy hill.
Over the wheat the glowing sun
Ripening the heart of the grain,
Above the sun is the gracious God
Sending the sunlight and rain."
- Selected.

V. Reference and Illustrative Material - See appendix 27.

Unit IV. Personal Hygiene

Lessons 13-20 inclusive

1. Objectives:

Major-

To know the relationship of personal hygiene to general health and well being.

Minor -

1. To develop habits of general cleanliness.
2. To develop an aesthetic appreciation of cleanliness.
3. To know how to perform the essential cleanliness practices.
4. To know how to care for the eyes, ears, nose, throat.
5. To know how to acquire good body and foot posture.
6. To know how to bring about internal cleanliness.

Division

Branch: (a) above and (b) supervision of funds.

Administrative

Branch: (a) above and (b) supervision of funds.

Branch: (a) above and (b) supervision of funds.

Branch

Branch: (a) above and (b) supervision of funds.

Branch: (a) above and (b) supervision of funds.

Branch

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Branch: (a) above and (b) supervision of funds.

Branch: (a) above and (b) supervision of funds.

7. To develop habits of good body and foot posture.

8. To know how to undertake first aid assistance.

11. Suggestive Problems:

General

How does personal care affect health and increase social prestige.

Specific

A. Why is a clean, neat person hired in preference to the dowdy person?

B. Do I follow proper cleanliness practices to have a well groomed appearance?

C. Why and how should I care for my eyes, ears, nose, throat and teeth?

D. How can I bring about internal cleanliness?

E. How can I improve my body and foot posture.

F. What can I do in emergencies?

111. Suggestive Procedures and Activities.

A. Importance of Personal Hygiene

Teacher discusses with class why evidences of personal care influence employers and why employers desire well cared for workers from a health standpoint. List on board evidences of good personal hygienic practices. Students check themselves from list on board and make records in note book.

Teacher discusses with class advantages of different kinds of baths, warm, cold, etc.

Care of the nails usually needs individual attention.

Each girl has at her place a paper towel on which are placed a cup half filled with soapy water,

7. In developing habits of good body and food hygiene.

8. In having fun in unobtrusive physical education.

II. Suggestive Questions:

General

How does personal care affect health and happiness?

Activities

Specific

1. Why is a clean, neat person liked in society?

Is the body person?

2. Do I follow proper cleanliness practices at home?

A self-cleaning environment?

3. How can we should I care for my eyes, ears, nose,

throat and teeth?

4. How can I learn about internal cleanliness?

5. How can I improve my body and food hygiene?

6. What are the consequences?

III. Suggestive Exercises and Activities

A. Importance of Personal Hygiene

Teacher discusses with class why cleanliness of

personal care influences happiness and why everyone

desires well noted for working from a healthy stand-

point. List on board advantages of good personal

hygiene practices. Students check themselves from

list on board and make records in note book.

Teacher discusses with class advantages of different

and kinds of clothes, shoes, hats, etc.

Class of two girls wearing headscarves individual attention.

Each girl has to have a paper towel in which

and placed a very small ball with every other

toothpicks with their points broken off so that the child can roll small pieces of cotton on them without having them fall off, an extra towel, and a nail file ready to use. This is school equipment. Teacher's desk has a bottle of olive oil, nail polish, and a pair of manicure scissors in a bottle of alcohol. While the children learning to roll cotton on sticks, the teacher goes from girl to girl, studies their nails, and advises concerning them. Teacher shows how to cut the nails in the proper curve, and shows the children how to file the rough places. Then they dip the toothpick in the soap and clean under the nails and around the cuticle, soaking the nails in the water, when necessary. Girls wash their hands under running water, and then dry the hands thoroughly. Teacher places a drop of olive oil in each palm and the children rub their nails and finger tips in it, polishing the nails on the side of the palm; then they rub their hands together until they feel soft and comfortable. Sometimes nail polish is used, but it is preferable to emphasize the clean hand.

B. Care of the Hair

Discuss with class: characteristics that make for hair beauty and what reacts against it, need for cleanliness, causes of dandruff, pediculosis, remedies for dandruff and pediculosis.

Study hair under microscope to show how dirt clings.

Teacher discusses with class proper methods of washing

hair.

Pupils may show proper methods of shampoo, if they desire. A committee in the class decides what the method of procedure shall be. It may be a simple demonstration which is dramatized with a beauty shop as the setting. The pupil whose head is to be shampooed is seated before the wash-bowl in the front of the room, so that the class may watch each step of the procedure. The operator ties on a rubber apron. About the shoulders of the subject she places another and covers it with a Turkish towel. She also gives her subject a small towel to place over her eyes. One pitcher filled with melted soap and one large pitcher filled with warm clean water are placed ready to use. More water may be drawn from the faucet when needed. The operator applies melted soap and rubs her subject's hair vigorously with the tips of her fingers. After each application of soap she rinses the hair with warm water. As a rule, three applications of soap are enough to clean the hair, but plenty of water is used to rinse it. Sufficient towels are at hand so that the drying may be completed without the aid of heat. In forty-five minutes at least five heads can be taken care of and at least ten children will have assisted in the shampoo, one girl washing and another drying the heads.

C. Care of the Eyes

Teacher points out: the wonder of the eye as compared with that of the camera. that eye fatigue is harmful just as fatigue of any other set of body muscles is, that if continued it will tend to weaken the eyes and may undermine body health, that overuse of eyes leads to eye fatigue, that we should do all close work at least twelve inches from the eyes, that reading in bed is injurious because it is difficult to keep the book in right position, that reading in moving vehicles keeps the eye muscles constantly readjusting the lens to the varying distances between eye and page because of bumps in the road bed. The teacher informs the class that: movies are hard on the eyes because of the motion and extremes of light and dark in the film, that at any time when the general body health is impaired (as in infectious disease) the eyes suffer also, that special care should be taken during convalescence, that in doing close work the lighting should be soft, not brilliant, shining on the work and not reflected into the eyes. The students are also told to use type of a reasonable size, paper which is neither too white nor glazed, yet forming a definite contrast with type used, so letters will stand out well, to avoid wind and dust and accidents at work or play, so no foreign bodies can have a chance to lodge there.

Teacher discusses with class following information on mimeographed sheets:

Teacher Polter said: The wonder of the eye as compared
with that of the camera, that eye fatigue is known
but just as fatigue of any other set of body muscles
is, that it is momentary it will soon be renewed the eyes
and eye and whole body muscle, that everyone of eyes
leads to eye fatigue, that we should do all these
work to least twelve inches from the eyes, that
reading in bed is injurious because it is difficult
to keep the book in right position, that reading
in moving vehicles keeps the eye muscles constantly
readjusting the focus of the varying distances between
eye and page because of bumps in the road and the
teacher informs the class that: never use hand on
the eye because of the motion or exposure of light
and dark in the film, that at any time when the
muscular body better is required (as in information
disease) the eye suffers also, that special care
should be taken during conversation, that in doing
class work the lighting should be soft, not brilliant,
shining on the work and not reflected into the eyes.
The students are also told to use type of a person-
also size, paper which is neither too white nor
black, yet forming a definite contrast with type
used, the letters will stand out well, to avoid strain
and that and students to work on glass, so no foreign
bodies can have a chance to lodge there.

Teacher discusses with class following information:

on micrographed objects:

The eye is a very complex sense organ, yet it often gets very poor treatment. We never really rest our eyes when they are open, and every bit of use involves adjustments of the tiny muscles which control them. A person should try to look away as long a distance as possible several times an hour when doing close work. Close work, such as reading small print, writing, sewing, and embroidering puts much more work upon the muscles of the eye than other occupations, like running, sweeping, gardening. The muscles can relax quite an appreciable amount when looking off into the distance. If they are functioning normally, there should be no feeling connected with the eyes. If discomfort is present, there is an abnormal condition present somewhere, though it may be in another part of the body. A good examination may show up the trouble in time for correction. Some forms of discomfort may be a tired feeling in the eyes, smarting, aching, a feeling of drawing, headache, or nausea. This may be:

- a. Nearsightedness (the rays of light focus in front of the retina for the eyeball is too long from front to back.)
- b. Farsightedness (the rays of light focus behind the retina for the eyeball is too short from front to back.)
- c. Astigmatism (imperfect curvature of cornea or lens at some point.)

All of these conditions can be corrected with proper

The eye is a very complex sense organ, and is often
called very poor equipment. We never really rest our
eyes when they are open, and every bit of our in-
trinsic adjustment of the lens muscles which controls
them. A person would try to look away as long as
possible as possible several times an hour when doing
close work. Close work, such as reading, sewing,
writing, and other occupations, requires more
work upon the muscles of the eye than other
occupations, like running, swimming, gardening. The
muscles can relax and accommodate almost when
looking off into the distance. If the eye functions
normally, there should be no feeling connected
with the eye. If discomfort is present, there is
an abnormal condition present somewhere, though it
may be in another part of the body. A good examina-
tion may show up the trouble in time for correction.
Some types of discomfort may be a direct result of
the eye, resulting, perhaps, a feeling of dryness,
redness, or itching. This may be:
a. Near-sightedness (the rays of light focus in
front of the retina for the eyeball is too
long from front to back.)
b. Far-sightedness (a ray of light focus behind
the retina for the eyeball is too short from
front to back.)
c. Astigmatism (irregular curvature of cornea
results in poor vision.)
All of these conditions can be corrected with proper

glasses unless the condition is very extreme. If not adjusted by glasses, the muscles will try to undertake the task, with resulting overwork and eyestrain. Many troubles are progressive and will result in increasingly poor sight, but with care will appear to remain the same.

C.₂Care of Ears.

Teacher discusses with students: the wonder of the ear, dangerous things to do: i. e. shouting into ears, slapping people on ears, using sharp instruments, such as pins or toothpicks to clean ears. Things to remember: i. e. if insect gets into the ear, use warm sweet oil to pour into the ear to remove insect, have physician attend to ear if there is unusual blocking, avoid colds.

C.₃Care of Nose and Throat

Teacher discusses: Causes of adenoids, how to care for nose and throat.

The following outline may be placed on board.

Adenoids and diseased tonsils usually develop in childhood.

Causes:

- a. Repeated and neglected attacks of cold in the head.
- b. Flu (grippe) and other infectious diseases.
- c. Over-heated rooms.
- d. Poorly ventilated rooms.

How to care for nose and throat.

classroom and the condition is very extreme. It
and adjusted by means of the window. The window will not
understand the back, with resulting overwork and
exhaustion. Many students are progressive and will
result in increasingly poor health, but with care
will appear to reveal the same.

C. Care of Eyes.

Teacher discusses with students the matter of the
eye, dangerous things to do: i. e. reading into
near, straining eyes on work, using heavy eyelids
work, such as pins or needles to close eyes. Things
to remember: i. e. if student gets into the eye, use
water never fill to pour into the eye to remove it -
never, have physician attend to eye if there is an
injury. Discuss, avoid colds.

D. Care of Nose and Throat.

Teacher discusses: Causes of colds, how to care
for nose and throat.

The following outline may be placed on board.
Acute and chronic sinusitis usually develop in
children.

Causes:

1. Exposed and neglected state of nose in the
head.
2. The (colds) and other infectious diseases.
3. Over-exposed nose.
4. Poorly ventilated rooms.
5. How to care for nose and throat.

- a. Try to prevent infectious and contagious diseases during infancy and childhood.
- b. Protect the tonsils by breathing plenty of cool, fresh air.
- c. Avoid dust-laden air whenever possible.
- d. Have medical care for disorders of nose and throat.
- e. Do not consider such a condition cured until discharges from nose and throat have disappeared.
- f. Dress healthfully; over-dressing or not dressing warmly enough causes trouble.
- g. Ventilate room day and night.
- h. Isolate members of family who may be ill with a transmissible disease.

C.4 Care of Teeth

Class studies the structure, development and care of the teeth as well as the place food holds in insuring good health. Students are taught the need of keeping the teeth brushed night and morning, and the necessity of regular visits to the dentist. Pretend that the hygiene room is a dentist's office. The hygiene teacher is the dentist.

Experiment:

Remove decay from rotten apple, place under skin of sound one, wrap in paper and put away for a few days. Clean another sound apple, cut a hole in it with a clean knife, wrap it in paper and put away at same time. What happens? Why?

1. Try to prevent infections and contagious diseases
during infancy and childhood.
2. Treat the disease by breathing plenty of cool
fresh air.
3. Avoid dust-laden air whenever possible.
4. Have medical care for disorders of nose and
throat.
5. Do not cough or sneeze such a condition cured
until discharges from nose and throat have
disappeared.
6. Breathe deliberately, over-breathing is not desirable.
7. Warmly enough dressed, especially
8. Ventilate room day and night.
9. Isolation members of family who may be ill with
a transmissible disease.
10. Care of Teeth
Class studies the importance, development and care of
the teeth as well as the glass tooth plate in dentistry.
Good health. Students are taught the need of keeping
the teeth brushed night and morning, and the necessity
of regular visits to the dentist. Hospital Law the
system now in a dental office. The dental procedure
is the dentist.
Exercises:
1. Have heavy from rubber cups, which under this
of sound and wrap in paper and put away for a few
days. Class another sound cup, and a hole in it
with a glass knife, wrap it in paper and put away
to keep safe. What happened? Why?

D. Internal Cleanliness - Care of Digestion

Teacher discusses with class what is meant by internal cleanliness. List on board food habits and foods which bring about easy digestion and foods which provide roughage, i. e. fresh and green vegetables, fresh fruits, plenty of water. Emphasize regularity of habits and sufficient exercise.

Teacher passes out mimeographed sheets on which is the following outline. She leads in the discussion of the major topics of knowledge regarding the alimentary canal.

1. Mouth
 - a. Teeth, tongue, saliva.
 - b. Function of each.
 - c. Salivary glands, how many, where located, how does secretion enter the mouth.
 - d. Effect of poor teeth on mastication.
2. Oesophagus and stomach
 - a. Location and function of each.
 - b. Lining of stomach, shape, capacity.
 - c. Functions of small intestine.
3. Small intestine
 - a. Position, length.
 - b. Muscular coats, function.
 - c. Functions of small intestine.
4. Large intestine
 - a. Location, form.
 - b. Difference from small intestine in size, function.

1. Laboratory of Digestion - Rate of Digestion

Feeding trials are also used in many of the animal industries. First on board feed trials are those which deal with early digestion and food which provide roughage, i. e. fresh and green vegetables, fresh fruit, plenty of water. Eggs - also regularly of health and sufficient exercise. Tests on periods of approximately three to five in the following section. The tests in the discussion of the major points of investigation regarding the

digestion of food.

1. Food

a. Food, food, water.

b. Position of food.

c. Delivery of food, how many, when, how.

d. Food reception of the food.

e. Effect of food on digestion.

f. Digestion and storage.

g. Location and position of food.

h. Effect of position, amount, quality.

i. Position of food in digestion.

j. Food intake.

k. Food intake.

l. Food intake.

m. Food intake.

n. Food intake.

o. Food intake.

p. Food intake.

q. Food intake.

5. Pancreas

a. Location, size, color.

b. Function.

6. Digestive juices

a. Saliva

b. Gastric

c. Pancreatic

d. Bile

e. Other intestinal fluids

f. Function of each

Suggestive Experiments:

1. Function of mastication

Take two tumblers half-full of water. Put a lump of sugar in one, and a teaspoonful of granulated sugar in the other. Stir, and observe the time it takes each to go into solution. Which dissolves first? Why? What conclusions do you draw regarding the purpose of chewing food?

2. Salivary Digestion

Any pupils wishing to try, may collect a little saliva in a small tumbler by chewing paraffin and expectorating into the tumbler. Take a bit of starch paste, previously prepared, drop it into the tumbler one-quarter full of water. Shake thoroughly and set aside. Observe what happens from time to time during the hour. If thought best, pupils may be encouraged to perform this experiment at home.

1. Digestion

2. Absorption

3. Excretion

4. Digestive juices

5. Saliva

6. Gastric

7. Pancreatic

8. Bile

9. Other intestinal fluids

10. Formation of feces

11. Digestive apparatus

12. Formation of mastication

Take two complete half-pints of water. Put a

teaspoon of sugar in one, and a teaspoonful of

powdered sugar in the other. Stir, and

observe the effect of these acids in the

digestion. What changes take place?

Experiments of this kind regarding the

digestive food?

13. Salivary Digestion

Two glasses standing to rest, say fifteen minutes

active in a small quantity of chewing gum

and expectorating into the tumbler. Take a bit

of starch paste, previously prepared, drop it

into the tumbler one-quarter full of water.

Stir thoroughly and set aside. Observe what

changes take place in the starch paste. In

the case of the saliva may be encouraged to

14. Food and experiment at home.

3. Peptic Digestion

Purchase a small bottle of pepsin from a drug store. Put about six pieces of hard-cooked egg white in a small tumbler one-quarter full of water. Egg pieces should not be larger than a small split pea. Add small amount of pepsin and place small tumbler in a glass bowl of water which can be kept at 100 degrees Farenheit.

Prepare another tumbler in the same manner but add to it three or four drops of diluted hydrochloric acid. Observe in these tumblers from time to time during the hour what happens.

Which preparation dissolves the egg white first?

This demonstrates the solution of protein material in the stomach. It also shows the purpose of the hydrochloric acid secretion of the stomach.

E.₁ Care of Posture

Teacher uses pictures of girls with good and poor posture to bring out the contrasts shown in general bearing, poise and the wearing of clothes. Teacher discusses the importance of good body and foot posture from the health standpoint. Girls refer to their health note books to check the records previously given them when posture test was made. Girls diagnose their good and poor points from charts, showing A B C posture. See appendix p. 13.

E.₂ Care of Feet

With a picture of the bones of the foot obtained from Educational Commercial Manual or a copy of an X-ray photograph of foot, show that the foot structure is similar to that of the model. The foot has five long

bones (extended by short one) attached to bones somewhat cubical in shape. The long bones form the ball of the foot and the toes, while the seven more or less cubical ones form the instep, heel and part where the leg bones articulate. Point out the two arches, longitudinal and transversal, held in place by ligaments and muscles. When the body weight presses down on the foot in standing, these stretch and the foot becomes longer and broader. If a person is very heavy, stands a great deal, or wears ill-fitting shoes, these muscles and ligaments lose their strength and the arches flatten out.

Indians wore loose mocassins which gave their feet plenty of room and plenty of exercise. They had little foot trouble. We wear stiff shoes, with pointed toes and high heels, often smaller than our feet, and we have foot trouble.

High heels throw the body weight to the wrong part of the foot and throw the whole body posture out of line.

Demonstrate this by constructing a model made of a flat piece of wood about a foot long and three inches wide, representing the foot, upon which is erected at right angles, a five foot pole representing the body. Place this model against the blackboard and draw a vertical line down, beside the erect pole representing the normal position of the body when standing on the bare feet.

Now insert under the heel end of the "foot" of the model an inch and a half block of wood representing a heel on a shoe. What does it do to the body of the model?

... (continued by about 100) attended to bones some-
what and in the shape. The four bones from the left
of the foot and the toes, while the seven were on the
right side from the foot, heel and very where the
leg bones articulated. Point out the two bones, longi-
tudinal and transverse, both in place by ligaments and
muscles. When the foot was in position down on the foot
in standing, these articulation and the foot become larger
in proportion. If a person is very heavy, the bones are
large, or rather ill-fitting shoes, the bones are
thickened in their structure and the bones of the foot are

Indians were found necessary when they were
gladly of room and plenty of exercise. They had little
foot trouble. In very stiff shoes, with pointed toes
and high heels, the articulation of the foot, and we have
foot trouble.

High heels know the foot which is the wrong part of
the foot and know the whole body posture out of line.
Dermatologists tell by examining a model made of a foot
that of wood about a foot long and three inches wide,
representing the foot, upon which is erected at right
angles, a five foot pole representing the leg. Place
this model against the blackboard and draw a vertical
line down, beside the erect pole representing the normal
position of the body when standing on the bare foot.
Now insert under the heel end of the "foot" of the model
a block and a half block of wood representing a heel
of a shoe. What does it do to the body of the model?

Trace the position of the body on the blackboard. How do the two lines compare? What significance has this for us? Can you trace the relation between hammered toes, shortened tendon of Achilles, weak ankles, poor posture, ingrowing nails and high heels?

Have the pupils turn their attention now to their foot-prints. Let them draw a line from the inside of the heel to the inside of the big toe joint, extending beyond the toe point a short distance.

Discuss with the class that a good shoe should:

1. Be longer than the foot when standing on each foot alone.
2. Be broad enough not to cramp the toes.
3. Have a flexible arch unless the foot is already flat or the wearer is standing most of the time.
4. Have a straight heel-to-toe line for proper weight distribution to prevent bunions.
5. Have a broad low heel to prevent accidents and fatigue.
6. Be made of soft leather.
7. Be a type of shoe which supports the foot.
8. Be shaped like the wearer's foot.

F. Emergencies and Accidents

Teacher discusses with students the attitudes to take in an emergency, i. e. coolness, etc. As each emergency is discussed the students dramatize it and show first-aid treatment.

Fainting: symptoms, cause, treatment.

Nose bleed: cause and treatment.

Scalds and burns: first-aid treatment of blisters.

Drowning: artificial respiration.

Cause and treatment of: lacerations, contusions, sprains, fractures.

Hygiene of the hands.

Bandages: kinds - triangular, sling, roller, circular; -precautions to use.

Students make first-aid kit.

IV. Suggestive Correlations

Civics

Teacher may use the following quotation to open a discussion on the relationship of personal health to community health.

"I will do no act that might endanger the health of others.

I will try to learn and to practice the rules of healthy living.

I will work, rest and play at the right time and in the right way, that my mind may be strong, my body healthy and that I will lead a useful life and be an honor to my parents, to my friends and to my country."

- The Massachusetts State Board of Health.

English

The following quotations may be discussed orally or interpreted in written composition work.

"Cleanliness is next to Godliness."

"Beauty without is born of health within."

- M.V. O'Shea.

These effects upon the individual
 and upon the community are discussed
 in the following chapters.
 The first chapter is devoted to a
 study of the individual
 and the second to a study of the
 community.
 The third chapter is devoted to a
 study of the individual and the
 community together.

IV. The Individual and the Community

Chapter I

The first chapter is devoted to a
 study of the individual and the
 community together.
 The second chapter is devoted to a
 study of the individual and the
 community together.

"I shall be no more than a shadow
 of the light of others."

I shall be no more than a shadow
 of the light of others.
 I shall be no more than a shadow
 of the light of others.

I shall be no more than a shadow
 of the light of others.
 I shall be no more than a shadow
 of the light of others.
 I shall be no more than a shadow
 of the light of others.
 I shall be no more than a shadow
 of the light of others.

The following chapters are devoted to a
 study of the individual and the
 community together.

Chapter II

The following chapters are devoted to a
 study of the individual and the
 community together.
 The first chapter is devoted to a
 study of the individual and the
 community together.
 The second chapter is devoted to a
 study of the individual and the
 community together.

"A good complexion is a social obligation.

It is a joy to look upon, though the face be plain.

It suggests health, sweetness, soundness and is
an asset in the struggle for existence."

- Keep Well Leaflets, Life Extension Institute.

"Cheerfulness and content are great beautifiers,
and are famous preservers of youthful looks."

- Dickens.

V. Reference and Illustrative Material.

See appendix p. 25.

It was anticipated in a similar situation.
It is a fact that even when, though the fact is plain.
It is a fact that even when, though the fact is plain.
It is a fact that even when, though the fact is plain.
It is a fact that even when, though the fact is plain.
It is a fact that even when, though the fact is plain.
It is a fact that even when, though the fact is plain.
It is a fact that even when, though the fact is plain.
It is a fact that even when, though the fact is plain.
It is a fact that even when, though the fact is plain.

See Appendix 1, 2, 3.
See Appendix 1, 2, 3.
See Appendix 1, 2, 3.

An Appraisal of the Proposed School Health Program in
Terms of the White House Conference Recommendation.

The problem stated in the introduction was to plan a course in health education for home-making girls in continuation school classes. The studies made of these girls revealed definite needs for which a proposed curriculum was set up which included aims, suggestive methods, unit-assignments, subject matter preparations, and suggestive units of work.

The White House Conference Recommendations made by the Committee on the School Child, which were kept in mind as the course was planned, will now be used as a measuring rod to determine whether the goal which was to have been reached was attained in terms of these recommendations. Each quotation taken from the report which would come within a continuation school teacher's jurisdiction will be briefly stated, underlined, and followed by comments relative to its incorporation in the proposed course for continuation school girls.¹

Abstract of the Report of the Committee on the School
Child Prepared by the Massachusetts Department of Public
Health.²

11. A school program so arranged that the physical, mental
and emotional health of the child will be protected and improved.²

1

The recommendations in detail are given in the appendix p. 40.

²The abstract of the Report of the Committee on the School Child. White House Conference. Mass. Dept. Public Health. All quotations from the report have been underlined.

A. Physical Health

1. Out-of-door recess periods with provision for exercise are a part of the regular school procedure.
2. Recreational pursuits which further general health have been suggested in the lesson outlines as topics for discussion and practice in the school.

B. Mental Health

1. Habits of honesty, truthfulness, cheerfulness, unselfishness, sociability, persistence and resourcefulness are among the healthful mental habits emphasized in the program.
2. Only in large cities is it possible to group continuation school pupils on the basis of mental ability.
3. The content and methods which have been suggested in Chapter V have taken into account the mental capacities of the students and are conducive to a happy, free school-room atmosphere.

111. Adequate Health Service.

A. The summer round-up of the pre-school child.

This feature is made part of the child care work.

B. Periodic Health Examination.

Yearly school health examinations have been provided for, so that the results may be used as a basis for corrective work.

C. Daily Health Inspection

The organization of the school makes it necessary for this practice to be converted into a weekly inspection of health habits. Records of individual progress are also made part of the suggested procedures.

Health Section

1. Out-of-door recesses are held with provision for exercise and a part of the transfer school procedure.

2. The physical education which follows recess is held in the gymnasium in the recess building as follows:

for discussion and practice in the school.

Health Section

1. Health of pupils, physical, mental, and moral, is maintained, strengthened, and improved by means of physical education, hygiene, and recreation.

2. The school and health which have been suggested in Chapter V have been found among the most important of the subjects and are suggestive to a large, well-organized school.

3. Only in large cities is it possible to group schools which school pupils in the field of mental ability.

4. The school and health which have been suggested in Chapter V have been found among the most important of the subjects and are suggestive to a large, well-organized school.

Health Section

1. The school and health which have been suggested in Chapter V have been found among the most important of the subjects and are suggestive to a large, well-organized school.

2. The school and health which have been suggested in Chapter V have been found among the most important of the subjects and are suggestive to a large, well-organized school.

Health Section

The organization of the school and health which have been suggested in Chapter V have been found among the most important of the subjects and are suggestive to a large, well-organized school.

for this section to be conveyed into a weekly inspection of health records. Records of individual progress are also made part of the suggested procedure.

D. Weighing and Measuring.

The use of the weight and height of children, as evidence of the growth, has been employed as the best introductory means to interest both parents and children in health teaching.

E. Immunization.

The basis for this work has been provided for in the study of communicable diseases.

F. Follow-up Work

It is part of the continuation school teacher's work to visit the home of her students, thereby supplementing the work of the school nurse in explaining the needed remedial work.

IV. Adequate Health Curriculum

Pupils leaving high school should have knowledge of the structure and function of the human body, the biology of reproduction, knowledge and skill which will enable them to cooperate in the reduction of accidents, knowledge and skill in first aid, knowledge of the effects of tobacco, alcohol, narcotics, and patent medicines on the individual human organism and on society, freedom from superstition on subjects concerning health and diseases, respect for the scientific method as it applies to health, and a specific knowledge of their own assets and liabilities in bodily equipment.

A. Safety Education

B. Social Hygiene

C. Nutrition Teaching

With the exception of much detailed physiologic knowledge relative to the structure and function of the human

body and a knowledge of the biology of reproduction the course of study suggested has included all of the topics recommended, to the extent that it is possible to adapt the topics suggested to a continuation school program.

Vll. School and Home Cooperation¹

From the very start the program planned proposes to bring the health work into the home by means of the follow-up program and general content of the course.

Vlll. Community Cooperation

In the study of community health those agencies and community services not familiar to the pupils are made known to them. Federal, state, and commercial material has been suggested to supplement their health work.

In conclusion we may state that the program suggested has approximated the standards set by the leaders in health education; that the machinery to carry it out is sufficient; that it has regard for local conditions; that it provides for individual needs in habits, attitudes, and knowledge; and that it takes cognizance of "the whole child" when it attempts to develop her physical, mental, emotional, spiritual, moral, and social self, as it relates to the whole educational process of the school, the home, and the community.

¹
Roman numerals used here refer to those given in the Abstract of the Report of the Committee on the School Child which is given in the appendix p. 43.

and a knowledge of the history of education the course
 of study suggested was included all of the topics recommended,
 it was felt that it is possible to study the topics suggested
 as a curriculum for the program.

VII. General and Social Studies

From the very start the program suggested appears to bring
 the health work into the home by means of the follow-up program
 and general content of the course.

VIII. Personal Development

In the study of personal development there are many and numerous
 factors that tend to influence the child and make known to them
 habits, traits, and emotional content and are suggested to
 emphasize their health work.

In conclusion we may state that the program suggested has
 emphasized the importance not only the health work but also
 social and the individual to carry it out in their lives;
 it has shown the child's development; that it provides for the
 physical needs in health, activities, and knowledge; and that it
 takes cognizance of "the whole child" when it attempts to develop
 his physical, mental, emotional, spiritual, social, and moral
 life, as it relates to the whole educational program of the
 school, the home, and the community.

These materials need more study to those given in the
 report of the Board of the Council on the Social Study
 which is given in the appendix p. 40.

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MEMORANDUM

SUBJECT

Enclosed for the Bureau of the Federal Reserve Bank of New York are the following documents:

1. A copy of the report of the Committee on the Administration of the Federal Reserve Bank of New York, dated June 1, 1934.

2. A copy of the report of the Committee on the Administration of the Federal Reserve Bank of New York, dated June 1, 1934.

3. A copy of the report of the Committee on the Administration of the Federal Reserve Bank of New York, dated June 1, 1934.

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12. A copy of the report of the Committee on the Administration of the Federal Reserve Bank of New York, dated June 1, 1934.

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Analysis of Shop Job for Related Work

Job No.

Job Analysis

Operations or Work Steps

1. Place wrong sides of material together
2. Baste
3. Stitch
4. Press seam open
5. Trim off seam to 1/8 of stitching line
6. Turn and stitch on other side taking in raw edges

Teaching Points

1. Study of material
2. Variety of basting stitches
3. Care and use of machine
4. Use and care of iron
5. Use of gauge
6. Seam finishing

Related Work Analysis--Specific

List all necessary related knowledge. Check new principles.

Math	Science	Drawing	Materials	Trade Terms Hygiene, Etc.
Add Sub. Mul. Fractions Percentage	Rayon as a vegetable fibre. Treatment in sewing and laundering. Durability Chemistry Use of <u>alkalis and acids.</u> Advantages and disadvantages of French Seams.	Sketch on pattern envelope.	Rayon Muslin Lawn Gingham Linen Chambray Voile Crepe	Rayon- a trade term Mnf'g terms loom weave selvedge lengthwise widthwise folds uses of Rayon Knit goods, draperies, etc. Hygiene of Dress - cleanliness.

Fundamental principles involved necessary for boy to know in order to do the above work.

Relatable

Math	English	Drawing	General
Measurements Costs of materials Discounts	History of Rayon Mulberry tree cotton fibre cellulose References: Good Housekeeping May 1928 Scientific American Aug. 1926 Review of Reviews June 1926 Also advertising publications.	Sketch on pattern envelope.	Civics - Hygiene Economic value Dexterity Responsibility Social value of dress. Care of

PHYSICAL EXAMINATION

2.

WORCESTER CONTINUATION SCHOOL

Name			Address		
Date of Birth			Age	Sex	
<u>General Health</u>			<u>Lungs</u>		
<u>Indigestion</u>			<u>Eyes</u>		
<u>Constipation</u>			Vision R. L.		
<u>Headaches</u>			<u>Ears</u> Discharge		
<u>Colds</u>			Hearing R. L.		
<u>Fatigue</u>			<u>Glands</u>		
<u>Sleep</u>			Thyroid		
<u>Anaemia</u>			Lymphatic		
<u>Height</u>			<u>Throat</u>		
<u>Weight</u>			Tonsils		
<u>Standard</u>			Pharynx		
<u>Posture</u>			<u>Teeth</u>		
<u>Head</u>			No. of Caries		
Scap.	R.	L.	<u>Nose</u>		
Chest			Adenoids		
Back			<u>Heart</u>		
Hips	R.	L.	Murmurs		
Abd. Prom.			Rhythm		
Spine			Rate		
Feet			Nervous System		
<u>Skin</u>			Speech Defects		
Mucuous Membrane	Color		Cleanliness		
Scalp			Others		

<u>Code</u> 0. Normal	2. Moderate	Dr. Initials	Date
1. Slight Defect	3. Immediate Attention	Specialist's Initials	

RECORD OF DEFECTS REQUIRING TREATMENT

BACKGROUND OF CHILD

Date	Defect	Treatment	Result	Nationality of Father
				Nationality of Mother
				No. of Children in Family

PERSONAL HISTORY

DATE

Vaccination
 Chicken Pox
 Measles
 Whooping Cough
 Scarlet Fever
 Bronchitis
 Pneumonia
 Tuberculosis
 Rheumatism
 Diphtheria
 Negative Schick
 Heart Disease
 Nervous Disease
 Operations
 Accidents
 Others

CLINICAL ATTENTION

Date	Clinic	Diagnosis	Clinical Return	1st Time	2nd Time	3rd Time	Result
------	--------	-----------	-----------------	----------	----------	----------	--------

DATE OF BIRTH: 1910-01-01
AGE: 10
SEX: M
RACE: W
RELIGION: C
EDUCATION: H
OCCUPATION: S
MARRIAGE: M
CHILDREN: 1
PARENTS: 1
SIBLINGS: 1
BROTHERS: 1
SISTERS: 1
MOTHER: 1
FATHER: 1
GRANDFATHER: 1
GRANDMOTHER: 1
AUNT: 1
UNCLE: 1
Cousins: 1
Nephews: 1
Nieces: 1
Other: 1
Address: 1234 Main St, New York, NY 10001
Phone: 123-4567
Occupation: Student
Education: High School
Marriage: Single
Children: None
Parents: Mother, Father
Siblings: Brother, Sister
Brothers: Brother
Sisters: Sister
Mother: Mother
Father: Father
Grandfather: Grandfather
Grandmother: Grandmother
Aunt: Aunt
Uncle: Uncle
Cousins: Cousins
Nephews: Nephews
Nieces: Nieces
Other: Other

PUPIL'S ESTIMATE OF THEIR OWN HEALTH HABITS

Name.....Grade.....
 School.....Date.....Age.....

Yesterday I did the things, each of which I have marked with a cross (X) in the list below:

Check here.

-1. I got up atO'clock. I went to bed at
o'clock.
-2. I took a full cleansing bath during the week.
-3. I washed my face and hands before breakfast.
-4. I brushed my teeth before coming to school.
-5. I brushed my teeth after supper, before I go to
bed.
-6. I drank.....glasses of water. (In the blank
space, write the number of glasses of water you
drank yeaterday.)
-7. I drank.....glasses of milk. (In the blank
space, write the number of glasses of milk you
drank yesterday.)
-8. I drank coffee or tea yesterday.
-9. I ate a hot cereal for breakfast.
-10. I ate green vegetables at some meal yesterday.
-11. I exercised out-of-doors after work.
.....
-12. I exercised indoors after work.
-13. I went to a moving picture show after work, before
supper.
-14. I went to a moving picture after supper.
-15. I washed my hands before every meal.
-16. I washed my hands after going to the toilet.
-17. I had a bowel movement before coming to school in
the morning.
-18. I slept last night with windows open.
-19. I used my own towel and my own cloth, which no one
else used, whenever I washed yesterday.
-20. I ate candy between meals yesterday.
-21. I helped mother and father, or someone else yester-
day. This is what I did.....
-22. I had a good time yesterday because.....
-23. I did not have a good time yesterday because.....
.....
-24. I had a fairly good time yesterday because.....
.....

A SURVEY OF KINDS OF FOODS WITH FREQUENCY OF CONSUMPTION IN HOME MENUS

	No. Test- ed	Once a Week	Three times a Week	Once a day 5 times a Week	More than once a day	Total No. Using	Per- cent of Class Using
1. Cereals, cooked....							
2. " uncooked....							
3. Fruits, cooked....							
4. " uncooked....							
5. " canned.....							
6. " dried.....							
7. Jelly.....							
8. Jam.....							
9. Macaroni.....							
10. Rice.....							
11. Pickles.....							
12. Cocoa.....							
13. Coffee.....							
14. Tea.....							
15. Milk.....							
16. Bread, home made, white.....							
" Bread, home made, whole grain.....							
17. Bread, Baker's white.....							
" Bread, Baker's whole grain.....							
18. Hot Bread.....							
19. Pancakes.....							
20. Puddings.....							
21. Vegetables, cooked.							
22. " uncooked							
23. " canned..							
24. Potatoes.....							
25. Butter.....							
26. Cheese.....							
27. Cottage Cheese....							
28. Meat, broiled.....							
29. " fried.....							
30. " roast.....							
31. " canned.....							
32. " dried.....							
33. " boiled.....							
34. Fish.....							
35. Poultry.....							
36. Salads.....							
37. Eggs.....							
38. Soup.....							
39. Cake.....							
40. Pie.....							

SURVEY OF ACTIVITIES PERFORMED IN THE HOME DURING THE WEEK

	No. Tested	Once a week	Three times a week	Once a day 5 times a week	More than once a day	Girls Per- form- ing the activ- ity	Per- cent of Class Per- form- ing at least once
1. Clean (whole re- sponsibility).....							
2. Help to clean.....							
3. Polish furniture..							
4. Cook.....							
5. Bake.....							
6. Wash dishes.....							
7. Errands.....							
8. Make beds.....							
9. Make fires.....							
10. Clean own room....							
11. Full care of children.....							
12. Halls, porches, walks.....							
13. Care of own clothes.....							
14. Put up lunches....							
15. Preparation of breakfast.....							
16. Preparation of dinner.....							
17. Set the table.....							
18. Sweep floors.....							
19. Dust.....							
20. Laundry.....							
21. Iron.....							
22. Sew.....							

SCORING KEY FOR GATES-STRANG HEALTH KNOWLEDGE TEST

The following are the correct answers to each of the 64 exercises:

1. at regular times each day.
2. sit down at the table and eat slowly.
3. in a cold place, covered.
4. more milk, bread, butter, spinach.
5. germs.
6. cover your face when coughing and sneezing.
7. have glasses fitted to his eyes by an eye doctor.
8. hot cereal.
9. hot soup, baked potato, milk.
10. often harms the lining of nose and throat.
11. very hot water and soap are needed every time.
12. may change as new discoveries are made.
13. having food lacking in some elements while the teeth are growing.
14. watching out so as not to trip or hit other people.
15. play outdoors in the sunshine.
16. with light, warm covers, and windows open top and bottom.
17. 1/2 hour.
18. regularly twice a year.
19. help keep children well.
20. not more than once a day.
21. ask the teacher's advice and follow it.
22. we learn how to swim and to save a drowning person.
23. "wear loose clothes".
24. iron and vitamins.
25. are suited to the weather.
26. milk.
27. as soon as the first fly appears in the spring.
28. orange juice.
29. they often contain drugs which are bad for us.
30. by being outdoors in the sunshine.
31. milk, bread and butter, spinach, dates.
32. our coughing and spitting.
33. feel comfortable and happy.
34. to use chairs and desks at school of just the right size and shape.
35. have some one, who knows how, get the cinder out.
36. increasing health and growth.
37. green vegetables and egg yolk.
38. it carries cold uncleaned air into the lungs.
39. kept in covered bins.
40. shaded light from above and behind us, without shadows on our book.
41. 4 to 8 cups of water.
42. it aids growth.
43. the saliva begins to digest starchy food.

44. drink one or two glasses of water on rising in the morning.
45. tin cans half full of water.
46. alcohol decreases accuracy and quickness of action.
47. active outdoor play.
48. to use a boiled piece of cloth that is allowed to touch nothing but the cut.
49. bones.
50. 14 to 20 inches in front of his eyes.
51. make new substances grow in the blood that destroy germs.
52. a damp or oiled cloth.
53. on much higher ground than the barn or water-closet.
54. unsuccessful.
56. buys and drinks no alcoholic beverages.
57. by changing hands every few minutes.
58. our size and what we do.
59. cereals and bread.
60. 2-3 pints.
61. milk, fish, eggs.
62. 65 and 69 degrees.
63. 700-900 calories.
64. 150.

TABLE OF AVERAGES

At End of	Actual Mean Score	Smoothed Curve Score	Approximate Number of Pupils
3A.....	15	15	28
3B.....	—	17	—
4A.....	—	20	—
4B.....	21	23	66
5A.....	—	26	—
5B.....	31	30	64
6A.....	35	33	53
6B.....	36	36	57
7A.....	41	39	34
7B.....	42	42	31
8A.....	44	45	32
8B.....	—	48	—

ARE YOU AS ATTRACTIVE AS NATURE INTENDED

YOU TO BE?

SCORE YOURSELF AND SEE

Massachusetts Department of Public Health

SCORE CARD

1. First impression.
 - (a) Have you "pep"?
 - (b) Have you control of yourself?
 - (c) Are you interested in other people?
 - (d) Have you confidence in yourself?
2. Build.
 - (a) Are you within 10% below or 15% above the correct weight for your years and height?
3. Hair.
 - (a) Glossy but free from excessive oil?
4. Eyes
 - (a) White of eyes clear?
 - (b) Alert-bright?
 - (c) Can you read ordinary print at 15 inches, or if not, have you glasses?
5. Ears.
 - (a) Can you hear ordinary conversation at 16 feet?
6. Teeth.
 - (a) Sound or all filled?
 - (b) Clean?
7. Skin.
 - (a) Clear (no eruptions).
 - (b) Good color.
 - (c) Clean.
8. Mouth.

Lips naturally red.
9. Posture.
 - (a) Correct. (Ask some one who knows what correct posture is).
10. Feet.
 - (a) Good shape.
 - (b) Do you wear comfortable walking shoes during business hours? (Straight inner line-low heels).
11. Muscles.
 - (a) Firm and elastic (not flabby)/

STUDY GUIDE

1. What is the purpose of the study?
(a) To learn the "why" of things?
(b) To have you control of yourself?
(c) To have you interested in other people?
(d) To have you confidence in yourself?

2. What is the purpose of the study?
(a) To have you learn the "why" of things?
(b) To have you control of yourself?
(c) To have you interested in other people?
(d) To have you confidence in yourself?

3. What is the purpose of the study?
(a) To have you learn the "why" of things?
(b) To have you control of yourself?
(c) To have you interested in other people?
(d) To have you confidence in yourself?

4. What is the purpose of the study?
(a) To have you learn the "why" of things?
(b) To have you control of yourself?
(c) To have you interested in other people?
(d) To have you confidence in yourself?

5. What is the purpose of the study?
(a) To have you learn the "why" of things?
(b) To have you control of yourself?
(c) To have you interested in other people?
(d) To have you confidence in yourself?

6. What is the purpose of the study?
(a) To have you learn the "why" of things?
(b) To have you control of yourself?
(c) To have you interested in other people?
(d) To have you confidence in yourself?

7. What is the purpose of the study?
(a) To have you learn the "why" of things?
(b) To have you control of yourself?
(c) To have you interested in other people?
(d) To have you confidence in yourself?

8. What is the purpose of the study?
(a) To have you learn the "why" of things?
(b) To have you control of yourself?
(c) To have you interested in other people?
(d) To have you confidence in yourself?

9. What is the purpose of the study?
(a) To have you learn the "why" of things?
(b) To have you control of yourself?
(c) To have you interested in other people?
(d) To have you confidence in yourself?

10. What is the purpose of the study?
(a) To have you learn the "why" of things?
(b) To have you control of yourself?
(c) To have you interested in other people?
(d) To have you confidence in yourself?

11. What is the purpose of the study?
(a) To have you learn the "why" of things?
(b) To have you control of yourself?
(c) To have you interested in other people?
(d) To have you confidence in yourself?

12. Clothes.

(a) Clean?

(b) Neat?

13. General health.

(a) Are you free from recurring pain?

(b) Are you free from constant infections?
(including colds)

TOTAL

If your score is not what you would like it to be,
why not improve it? Are you doing the things
listed below?

1. Eating - every day.

Whole grain cereal or dark bread

Some fruit

Two vegetables (potato not counted) one of them raw.

Some of the following: milk, egg, meat, fish, cheese, nuts.

2. Eating slowly.

3. Drinking 6 glasses of water every day.

4. Omitting sweets except for dessert.

5. Sleeping at least 9 hours with window open each night.

6. Brushing the teeth and gums morning and night.

7. Having a bowel movement without the aid of medicine at least once a day.

8. Taking exercise in the fresh air every day.

9. Bathing frequently.

10. Facing life with courage.

11. Visiting the dentist at least once a year.

12. Having a physical examination every year.

12. (a) (b) (c)

13. (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z)

If there is any other thing to be done, please let me know.

1. Eating - every day.
2. Drinking - every day.
3. Sleeping - every day.
4. Bathing - every day.
5. Exercise - every day.
6. Reading - every day.
7. Writing - every day.
8. Thinking - every day.
9. Feeling - every day.
10. Acting - every day.
11. Being - every day.
12. Having - every day.
13. Doing - every day.
14. Making - every day.
15. Getting - every day.
16. Putting - every day.
17. Taking - every day.
18. Giving - every day.
19. Sending - every day.
20. Receiving - every day.
21. Bringing - every day.
22. Carrying - every day.
23. Holding - every day.
24. Supporting - every day.
25. Lifting - every day.
26. Lowering - every day.
27. Pushing - every day.
28. Pulling - every day.
29. Moving - every day.
30. Staying - every day.
31. Leaving - every day.
32. Arriving - every day.
33. Departing - every day.
34. Returning - every day.
35. Visiting - every day.
36. Meeting - every day.
37. Greeting - every day.
38. Saying - every day.
39. Telling - every day.
40. Showing - every day.
41. Demonstrating - every day.
42. Explaining - every day.
43. Describing - every day.
44. Defining - every day.
45. Naming - every day.
46. Calling - every day.
47. Referring - every day.
48. Mentioning - every day.
49. Alluding - every day.
50. Hinting - every day.
51. Implying - every day.
52. Suggesting - every day.
53. Advising - every day.
54. Warning - every day.
55. Informing - every day.
56. Notifying - every day.
57. Alerting - every day.
58. Reminding - every day.
59. Encouraging - every day.
60. Discouraging - every day.
61. Inspiring - every day.
62. Motivating - every day.
63. Persuading - every day.
64. Convincing - every day.
65. Proving - every day.
66. Demonstrating - every day.
67. Establishing - every day.
68. Proving - every day.
69. Confirming - every day.
70. Verifying - every day.
71. Checking - every day.
72. Examining - every day.
73. Inspecting - every day.
74. Investigating - every day.
75. Researching - every day.
76. Studying - every day.
77. Learning - every day.
78. Teaching - every day.
79. Instructing - every day.
80. Training - every day.
81. Educating - every day.
82. Raising - every day.
83. Bringing up - every day.
84. Growing - every day.
85. Developing - every day.
86. Advancing - every day.
87. Progressing - every day.
88. Improving - every day.
89. Enhancing - every day.
90. Enriching - every day.
91. Strengthening - every day.
92. Consolidating - every day.
93. Solidifying - every day.
94. Firming - every day.
95. Settling - every day.
96. Establishing - every day.
97. Founding - every day.
98. Building - every day.
99. Constructing - every day.
100. Creating - every day.

MASSACHUSETTS STATE COLLEGE
HEALTH CONTEST RECORD CARD - 1931
FOR 4H GIRLS

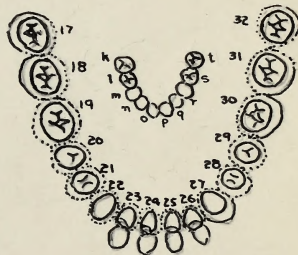
Name	Address			
County	Birthday			
No. of years	Projects		Personality	
	Begin	End of Club	County	State
Scoring Points	Contest Pts.	Contest Pts.	Contest Pts.	Contest Pts.
*Height				
*Weight (Gain)				
Throat				
Tonsils & Others				
Nose				
Adenoids & Others				
Heart				
Lungs				
Ears				
Eyes				
Teeth				
Hair Scalp				
Skin				
*Hygiene				
Posture - Head				
Chest				
Shoulders				
Abdomen				
Spine				
Feet				
Tests -				
Lying on Floor				
Wall Test				
Three Way Test -				
Standing				
Walking				
Exercising				
Evidence of				
Good Posture				
Habitual Freedom				
of Movement				
Date of				
Examination				
Name of Examiner				
Total - Points				
Scoring to be marked: G.- Normal or corrected -----8 points.				
F.- Slight defect.....5 points.				
P.- Moderate defect.....3 points.				
V.P.Severe, needing atteintion.0 points.				
* Hygiene to include Food Habits as listed in Health Record Book.				
Health Habits as listed in Health Record Book.				

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF ENTOMOLOGY
WASHINGTON, D. C.

Name	County	Address	Personality	Profession	Date of Birth	County	State
George H. H. H.	Harris	Harris	Harris	Harris	Harris	Harris	Harris
Harris	Harris	Harris	Harris	Harris	Harris	Harris	Harris
Harris	Harris	Harris	Harris	Harris	Harris	Harris	Harris
Harris	Harris	Harris	Harris	Harris	Harris	Harris	Harris
Harris	Harris	Harris	Harris	Harris	Harris	Harris	Harris

School - Grade - Age

Parents Name

[illegible]

POSTURE TEST

- 1. Head
 - 11. Chest
 - 111. Shoulders
 - 1V. Abdomen
 - V. Spine
 - VI. Feet
-

Code: A Excellent
B Good
C Fair
D Poor
E Failure

Tests:

- a. Wall test
- b. Three way test:

- 1. Standing
- 2. Walking
- 3. Exercising

Evidence of good posture

Evidence of habitual freedom of movement

FOODS SCORE CARD

RECORD OF FOOD HABITS

Food Credits	First Scoring	Second Scoring	Third Scoring	Fourth Scoring
--------------	------------------	-------------------	------------------	-------------------

Milk (less than a pint
no credit)

1 quart daily...20

1 pint daily....15

Vegetables (other than
dried beans. Potatoes
may be included as one
serving)

3 servings daily..20

2 servings daily..15

If one serving is
green or raw vegetable
add..... 5

Fruits (fresh, dried
or canned)

2 or more servings
daily.....10

1 serving daily... 5

Orange or Tomato

1 serving daily... 5

Cereals (may be break-
fast food or bread)

1 serving daily...10

Water (six to eight
glasses.....10

No tea or coffee..10

No sweets between
meals.....10

Totals 100%

Normal gain in height and weight by years for boys and girls 7-14

From statistics made at the University of Iowa, by Bird T. Baldwin.

<u>Inches gained in height</u>	<u>Pounds gained in weight</u>	
1.63	4.00	Between 7 and 8 boys
1.62	3.64	" " " " girls
1.98	6.20	" 8 " 9 boys
1.96	7.37	" " " " girls
1.87	5.32	" 9 " 10 boys
2.50	8.09	" " " " girls
1.89	6.00	" 10 " 11 boys
2.00	6.51	" " " " girls
1.79	6.38	" 11 " 12 boys
1.97	7.97	" " " " girls
2.42	10.00	" 12 " 13 boys
2.41	12.61	" " " " girls
2.37	9.83	" 13 " 14 boys
1.69	9.75	" " " " girls
2.42	11.81	" 14 " 15 boys
1.46	11.70	" " " " girls

Distributed by State Department of
Public Health.

From statistics made at the University of Iowa, by Miss E. E. Ebeling.
Young men in military and naval service for boys and girls V-12

Between 7 and 8 boys	Points earned in service	Points earned in service
" " " " " "	1.00	1.00
" " " " " "	2.00	2.00
" " " " " "	3.00	3.00
" " " " " "	4.00	4.00
" " " " " "	5.00	5.00
" " " " " "	6.00	6.00
" " " " " "	7.00	7.00
" " " " " "	8.00	8.00
" " " " " "	9.00	9.00
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" " " " " "	17.00	17.00
" " " " " "	18.00	18.00
" " " " " "	19.00	19.00
" " " " " "	20.00	20.00

Reproduced by State Department of
 Public Health.

CLASSIFIED LIST OF HEALTH HABITS¹

1. Have a full bath more than once a week.
2. Brush the teeth at least once a day.
3. Sleep long hours with the windows open.
4. Drink as much milk as possible but no coffee or tea.
5. Eat some vegetables or fruit every day.
6. Drink at least four glasses of water a day.
7. Play part of every day out-of-doors.
8. Have a bowel movement every morning.

Growth and Health

9. Determine weight regularly.
10. Plan a health training program of the essential habits.
11. Correct physical defects as far as possible.
12. Live within one's own physical limitations.

Skin

13. Wash the face, neck and ears daily.
14. Rinse and dry the skin thoroughly.
15. Use one's own towel and washcloth and keep them clean.
16. Provide skin stimulation, as by cold bath or dry rub.
17. Prevent the spread of skin diseases and infections.

Hands

18. Wash hands before eating or handling food.
19. Wash hands after using toilet.
20. Keep nails short and clean.
21. Refrain from biting nails or picking hangnails.
22. Keep hands and materials away from the face.
23. Prevent or care for hangnails.

Hair

24. Brush and comb hair daily.
25. Use one's own comb and brush and keep them clean.
26. Have the hair washed at least once in two weeks.
27. Massage the scalp by brisk brushing or rubbing.
28. Keep the hair trimmed or tied back from the eyes.
29. Dry the hair thoroughly before going out.

Nose

30. Breathe through the nose with the mouth closed.
31. Blow the nose gently.
32. Cover coughs and sneezes with a clean handkerchief.
33. Carry a clean handkerchief every day.

 1

This list is taken from a "Conspectus" entitled "Program of Health Education in the Public School", published by D. C. Heath and Company and arranged in the form of a 22 x 38 inch wall chart.

CELESTIAL LIST OF HEALTHY HABITS

1. Have a full bath once a week.
2. Brush the teeth at least once a day.
3. Sleep long hours with the windows open.
4. Drink as much milk as possible but no coffee or tea.
5. Eat some vegetables at least every day.
6. Drink at least a glass of water a day.
7. Stay out of heavy and cold-draughts.
8. Have a good movement every morning.

General and Health

9. Refrain from eating regularly.
10. Have a regular program of the essential habits.
11. Control physical defects as far as possible.
12. Live within one's own physical limitations.

Skincare

13. Wash the face, neck and ears daily.
14. Rub and dry the skin thoroughly.
15. Use one's own face and washcloth and keep them clean.
16. Provide skin attention as by cold bath or dry rub.
17. Prevent the spread of skin diseases and infections.

Hands

18. Wash hands before eating or handling food.
19. Wash hands after using toilet.
20. Keep nails short and clean.
21. Rub hands with soap or disinfectant.
22. Rub hands and materials away from the face.
23. Prevent on care for hands.

Hair

24. Brush and comb hair daily.
25. Use one's own comb and brush and keep them clean.
26. Have the hair washed at least once in two weeks.
27. Massage the scalp by finger rubbing or rubbing.
28. Keep the hair covered as also from the eyes.
29. Dry the hair thoroughly before going out.

Throat

30. Breathe through the nose with the mouth closed.
31. Gargle the throat daily.
32. Avoid foods and beverages with a strong pungent odor.
33. Have a clean mouthwash every day.

This list is taken from a "Handbook" entitled "Program of Health Education in the Public School," published by D. C. Heath and Company and arranged in the form of a 22 x 36 inch wall chart.

Mouth and Teeth

34. Use a toothbrush of proper size, and stiffness.
35. Use one's own toothbrush.
36. Care for the toothbrush properly.
37. Brush the gums and tongue properly.
38. Refrain from biting hard objects.
39. Select a diet rich in tooth-building material.
40. Visit a dentist twice a year.
41. Eat some food requiring vigorous mastication.
42. Refrain from picking the teeth with pins.

Food and Habits of Eating

43. Learn to like milk, dark breads, whole-grain cereals.
44. Avoid sweets unless at the end of a meal.
45. Eat three regular meals a day.
46. Eat a good breakfast each morning.
47. Avoid exchanging food or eating food picked from floor.
48. Eat slowly and chew food well.
49. Take small bites and mouthfuls.
50. Refrain from drinking while food is in the mouth.
51. Include sufficient bulky food in the diet.
52. Refrain from eating between meals.
53. Eat a simple warm lunch daily.
54. Take a heavy meal at most healthful time of day.
55. Avoid eating fried foods.
56. Drink a glass of water before breakfast.
57. Drink plenty of water between meals.
58. Avoid ice water or drink only small portions.
59. Use drinking fountains properly.
60. Sit properly at the table.
61. Be calm, cheerful, and polite at the table.
62. Wash hands before handling food.
63. Avoid eating when hurried or excited.
64. Wash dishes properly after using them.
65. Use individual cups.
66. Protect food from dust, flies, and rodents.
67. Handle and store fresh and prepared food properly.

Elimination of Body Waste

68. Avoid the abuse of cathartics.
69. Take sufficient exercise daily to aid elimination.

Posture

70. Keep erect when standing, walking, or sitting.
71. Avoid twisting the body to the left while writing.
72. Walk without scuffing and with toes pointing ahead.
73. Correct poor habits of posture.

Feet

74. Keep the nails short and clean.
75. Prevent ingrowing toe nails by proper care.

Mouth and Teeth

54. Use a toothbrush of proper size, and softness.
55. Use one's own toothbrush.
56. Care for the toothbrush properly.
57. Brush the front and tongue properly.
58. Remove from biting hard objects.
59. Deflect a blow rich in tooth-biting material.
60. Visit a dentist twice a year.
61. Use good food retaining vigorous mastication.
62. Remove from playing the teeth with pins.

Food and Habits of Eating

63. Learn to like milk, dark breads, whole-grain cereals.
64. Avoid sweets which are at the end of a meal.
65. Eat three regular meals a day.
66. Eat a good breakfast each morning.
67. Avoid exchanging food or eating food picked from floor.
68. Eat slowly and chew food well.
69. Eat small bites and mouthfuls.
70. Remove from drinking water food in the mouth.
71. Include sufficient dairy food in the diet.
72. Remove from eating between meals.
73. Eat a sizable meal lunch daily.
74. Eat a hearty meal at most sedentary time of day.
75. Avoid eating tired food.
76. Obtain a glass of water before breakfast.
77. Drink plenty of water between meals.
78. Avoid too much water or drink only small portions.
79. Use drinking fountain properly.
80. Sit properly at the table.
81. Be calm, cheerful, and polite at the table.
82. Wash hands before handling food.
83. Avoid eating when hurried or excited.
84. Wash dishes properly after using them.
85. Use individual cups.
86. Protect food from dust, flies, and rodents.
87. Handle and store frozen and prepared food properly.

Elimination of Body Waste

88. Avoid the abuse of cathartics.
89. Take sufficient exercise daily to aid elimination.

Posture

90. Keep erect when standing, walking, or sitting.
91. Avoid twisting the body to the left while writing.
92. Walk without swaying and with toes pointing ahead.
93. Correct poor habits of posture.

Feet

94. Keep the nails short and clean.
95. Prevent ingrowing toe nails by proper care.

- 76. Wash feet regularly and wear clean stockings.
- 77. Give the feet vigorous exercise.
- 78. Wear rubbers at appropriate times.
- 79. Remove rubbers and overshoes indoors.
- 80. Wear shoes of proper size and shape.
- 81. Keep shoes clean and polished.
- 82. Keep shoes, especially heels, in good repair.
- 83. Wear Stockings of proper size.

Clothing

- 84. Keep clothing as clean as possible.
- 85. Remove extra wraps indoors.
- 86. Keep wraps and clothing neatly and in proper place.
- 87. Remove and air all day clothing at night.
- 88. Wear loose comfortable clothing.
- 89. Adjust clothing to temperature and weather.
- 90. Remove damp clothing promptly; warm body if chilled.
- 91. Put on extra wraps when one is warm after exercise.
- 92. Have clean underclothing at least twice a week.
- 93. Wear underclothing suitable to climate and season.
- 94. Avoid water-proofed material for constant wear.

Fresh Air, Ventilation, and Sunshine

- 95. Expose skin to sunlight; tan but don't burn.
- 96. Get abundant sunshine in the home.
- 97. Maintain proper ventilation in rooms if possible.
- 98. Avoid overcrowded and poorly ventilated places.
- 99. Choose outdoor recreation when possible.

Sleep, Rest and Relaxation

- 100. Have a regular bedtime.
- 101. Use a low pillow or no pillow.
- 102. Take a relaxed position of sleeping or resting.
- 103. Use sufficient light warm cover but not too much.
- 104. Eat only light meals before sleeping.
- 105. Avoid excitement just before retiring.
- 106. Air bed clothing each morning.
- 107. Change sheets and pillow slips each week.
- 108. Relax during rest periods at school or at home.
- 109. Provide for sufficient daytime rest and relaxation.

Eyes

- 110. Avoid rubbing the eyes.
- 111. Read only in proper light.
- 112. Hold work in correct position and at correct distance.
- 113. Avoid looking at the sun or other brilliant light.
- 114. Wear properly fitted glasses when necessary.
- 115. Avoid reading while lying down.
- 116. Avoid reading on moving cars.
- 117. Rest eyes - close them or look at distant objects.
- 118. Avoid glare.
- 119. Avoid excess of fine work.
- 120. Remove foreign objects from the eyes carefully.

97. Wash face regularly and wear clean stockings.
98. Give the feet vigorous exercise.
99. Wear slippers at appropriate times.
100. Remove slippers and overstock stockings.
101. Wear slippers of proper size and shape.
102. Keep slippers clean and polished.
103. Keep shoes, especially heels, in good repair.
104. Keep stockings of proper size.

Lighting

105. Keep clothing as clean as possible.
106. Remove extra wraps indoors.
107. Keep wraps and clothing neatly and in proper place.
108. Remove and air all day clothing at night.
109. Wear loose comfortable clothing.
110. Adjust lighting to temperature and season.
111. Remove damp clothing promptly; wash feet if soiled.
112. Use an extra warm blanket or extra after exposure.
113. Have clean underclothing at least twice a week.
114. Keep underclothing suitable to climate and season.
115. Avoid water-proofed material for outdoor wear.

Good Air Ventilation and Humidity

116. Remove extra clothing; use hot and cold water.
117. Keep windows open in the house.
118. Maintain proper ventilation in rooms if possible.
119. Avoid overcrowded and poorly ventilated places.
120. Have an outdoor recreation when possible.

Sleep, Rest and Relaxation

121. Have a regular bedtime.
122. Use a low pillow or no pillow.
123. Take a relaxed position of sleeping or resting.
124. Use artificial light with care and not too much.
125. Use only light music before sleeping.
126. Avoid excitement just before bedtime.
127. Use hot alcohol and warm water.
128. Use hot alcohol and pillow with each wash.
129. Remove excess and pillow with each wash.
130. Keep sleeping feet warm at all times or at least.
131. Provide for sufficient toilet rest and relaxation.

Exercise

132. Avoid rubbing the eyes.
133. Wash only in proper place.
134. Wash with in correct position and at correct distance.
135. Avoid looking at the sun or other brilliant light.
136. Use proper eye glasses when necessary.
137. Avoid reading while lying down.
138. Avoid reading on water cars.
139. Wear eye - glass when to look at distant objects.
140. Avoid eye.
141. Avoid excess of fine work.
142. Remove foreign objects from the eyes carefully.

- 121. Get medical advice when there is trouble with the eyes.
- 122. Keep frames of glasses properly adjusted (not bent).

Ears

- 123. Refrain from putting anything into the ears.
- 124. Wash the ears carefully.
- 125. Get medical advice when there is trouble with the ears.

The Mind and Nervous System

- 126. Be cheerful and courteous.
- 127. Avoid bad temper, nervousness, worry.
- 128. Form the habit of concentration.

129.

Sanitation

- 129. Have screen doors shut.
- 130. Use a door mat when necessary.
- 131. Dispose of household waste and garbage properly.
- 132. Help to keep school and other public toilets clean.
- 133. Help to keep your school, home, and town clean.
- 134. Keep kitchen, bath, and bedroom sanitary.
- 135. Help prevent the breeding of flies and mosquitoes.

Communicable Diseases

- 136. Take care of small cuts and scratches immediately.
- 137. Prevent colds if possible.
- 138. Treat colds promptly.
- 139. Avoid those who have communicable diseases.
- 140. Practice habits which protect against tuberculosis.
- 141. Vaccinate against smallpox, typhoid, and diphtheria.

Harmful Substances

- 142. Avoid alcoholic beverages.
- 143. Avoid cigarettes or other forms of tobacco.
- 144. Avoid tea and coffee during the growing period.
- 145. Take medicine (except home remedies) as doctor directs.

Safety

- 146. Develop practices of safety.

MALNUTRITION

Taken from Lydia Roberts' "Nutrition Work With Children"

Primary Causes

Secondary Causes

1. Faulty Diet:

1. Poverty

A. Too little food.

1. Inadequate breakfasts due to

11. Ignorance

a. No appetite

111. Lack of Home Control

- (1) Adenoids, tonsils
- (2) Indigestible evening meal
- (3) Unventilated bedroom
- (4) Short time between rising and breakfast

b. Hurry

- (1) Late bedtime and rising time
- (2) Fear of being late to school

c. No breakfast prepared

- (1) Mother at work
- (2) Mother thinks little needed

d. Habit or fad (adolescent girl)

2. Inadequate lunch

a. Hurry

- (1) Short lunch hour
- (2) Desire to play

b. School lunches inadequate

- (1) Not enough served
- (2) Unsupervised

c. Home lunches inadequate

- (1) Mother at work
- (2) Mother thinks little needed

3. All meals insufficient in amount

a. Not enough provided for any meal

- (1) Mother ignorant of great needs of children
- (2) Cannot afford to buy

b. No appetite for any meals

- (1) Physical defects
- (2) Toxins from tonsils, adenoids, or other sources

QUESTIONS

Taken from "The Handbook of Psychology" by Sigmund Freud

Secondary Content

Primary Content

1. Primary

1. Primary

A. Two Little Girls

1. Primary

1. Primary

2. Secondary

1. Primary

- (1) Abandonment, death
- (2) Intense emotional reaction
- (3) Unrestrained behavior
- (4) Short time between eating and sleeping

1. Primary

- (1) Late bedtime and rising time
- (2) Fear of being late to school

2. Secondary

- (1) Working at home
- (2) Father's illness, mother's death

3. Tertiary

1. Primary

- (1) School lunch hour
- (2) Father's death

2. Secondary

- (1) Not enough sleep
- (2) Unrestrained

3. Tertiary

- (1) Father's death
- (2) Father's illness, mother's death

4. All cases characterized in second

- (1) Mother's death, father's death
- (2) Father's death, mother's death

5. No response for any case

- (1) Physical factors
- (2) Factors from family, school, or other sources

Secondary Causes

1. Poverty

11. Ignorance

111. Lack of Home Control

(b) Under-par condition
with diminished gastro-
motility and secretion

(3) Overfatigue

(4) Lack of outdoor play

(5) Unpalatable food

B. Food Inadequate in Kind

1. Too little milk

a. Not provided

b. Child dislikes

2. Too few vegetables and fruits

a. Not provided

b. Child dislikes

3. Too much candy and other sweets

4. Use of coffee and tea

C. Bad Food Habits

1. Between-meal eating

2. Hurried meals

3. Irregular meals

11. Faulty Hygiene

A. Too little sleep

1. Bed too late

a. Home lessons

b. Movies, parties

c. Reading in bed

d. Lights, noise, etc.

e. Child's desire to stay up

2. Up too early

a. To work (farms, newsboys)

b. To get to school (country)

c. To conform to father's hours

d. Sleep disturbed

3. Unable to sleep

a. Too tired to sleep

b. Too excited to sleep

B. Overexercise and fatigue

1. Too hard work

a. In factories and other industries

Secondary Factors

1. Poverty
2. Ignorance
3. Lack of Room
4. Unhygienic

(1) Poorer - poor condition
with limited space
ventilation and sanitation

- (1) Overcrowding
- (2) Lack of outdoor space
- (3) Unhygienic food

4. Poor sanitation in food

5. Poor little child

- a. Not provided
- b. Child's health

6. Poor low vegetables and fruits

- a. Not provided
- b. Child's health

7. Poor much meat and other foods

8. Lack of coffee and tea

9. Poor food habits

1. Poor eating habits
2. Poor eating habits
3. Poor eating habits

10. Poor hygiene

11. Poor little child

1. Poor and late
- a. Poor eating habits
- b. Poor eating habits
- c. Poor eating habits
- d. Poor eating habits
- e. Poor eating habits
- f. Poor eating habits

12. Poor food habits

- a. To work (poor, poor)
- b. To eat in school (poor)
- c. To eat in school (poor)
- d. To eat in school (poor)
- e. To eat in school (poor)

13. Poor to sleep

- a. Poor to sleep
- b. Poor to sleep

14. Overcrowding and fatigue

1. Poor food habits
2. Poor food habits

- | | |
|---|---------------------------|
| b. On farms | <u>Secondary Causes</u> |
| 2. Too hard play | 1. Poverty |
| a. Unsited or excessive physical training | 11. Ignorance |
| b. Too hard or long continued play in games | 111. Lack of Home Control |
| C. Too little fresh air and sunshine | |
| 1. Too little outdoors | |
| a. Home lessons, music, dancing, etc. | |
| b. No place to play | |
| c. No one to supervise (younger children) | |
| 2. Poor housing | |
| a. Lack of ventilation | |
| b. Lack of sunshine | |
| c. Rooms too hot or too dry | |
| 3. Poor school sanitation | |
| a. Lack of ventilation | |
| b. Too warm or too dry | |

111. Defects and Disease

- A. Enlarged or diseased tonsils
- B. Bad teeth - carious, maloccluding, diseased
- C. Tuberculosis
- D. Syphilis
- E. Other infectious disease
- F. Hookworm

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Secondary causes

- I. Poverty
- II. Inadequate housing
- III. Lack of ventilation

- 1. The crowded play
- 2. The lack of adequate ventilation
- 3. The lack of long continued play
- 4. The lack of fresh air and sunlight
- 5. The lack of outdoor play
- 6. The lack of play
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- 100. The lack of play

III. Defects and Diseases

- A. Defects in disease control
- B. Defects in disease control
- C. Defects in disease control
- D. Defects in disease control
- E. Defects in disease control
- F. Defects in disease control
- G. Defects in disease control
- H. Defects in disease control
- I. Defects in disease control
- J. Defects in disease control
- K. Defects in disease control
- L. Defects in disease control
- M. Defects in disease control
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- O. Defects in disease control
- P. Defects in disease control
- Q. Defects in disease control
- R. Defects in disease control
- S. Defects in disease control
- T. Defects in disease control
- U. Defects in disease control
- V. Defects in disease control
- W. Defects in disease control
- X. Defects in disease control
- Y. Defects in disease control
- Z. Defects in disease control

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V. Reference and Illustrative Material to Supplement Suggestive Lessons

Reference and Illustrative Material for Personal Hygiene and Physiology

1. Books

- Aldinger, Goldberger. Health Essentials. Ginn and Co., Boston.
 Address and Brown, Maude. Science and the Way to Health. Ginn and Co., Boston.
 Address and Evans. Health and Good Citizenship. Ginn and Co., Boston.
 Address and Evans. Health and Success. Ginn and Co., Boston.
 Emerson and Betts. Physiology and Hygiene. Bobbs-Merrill Co., Indianapolis, Indiana.
 Newmayer and Broome. The Human Body and Its Care. American Book Co., New York.
 Turner and Collins. Health. D. C. Heath and Co., Boston.
 Turner. Physiology and Health. D. C. Heath and Co., Boston.
 Winslow and Hahn. The New Healthy Living. Charles E. Merrill Co., New York.

11. Bulletins and Pamphlets

A. U. S. Government Bulletins

Department of Labor

Children's Bureau Circular 164. Posture Clinics.

B. State Bulletins

Massachusetts Department of Public Health

Attention Stand Tall - Posture

A Health Creed

Away With Colds

Brownie Health Rules

Diet to Aid Bowel Movement

Eating for Teeth

Exercises for Constipation

Health Score Card

Ten Rules of Healthful Living

The Toothbrush Drill

Watch Your Step - Posture

Your Teeth

C. Commercial Bulletins

Battle Creek Food Co., Battle Creek, Michigan. Importance of Posture

Boot and Shoe Recorder Publishing Co., Boston.

Cantilever Corporation. Foot Chart. 410-424 Willoughby Avenue, Brooklyn, New York.

Child Health Organization. New York City. Happy's Vanity Case.

Metropolitan Life Insurance Co., New York.

An Ounce of Prevention

First Aid in the Home

Foot Health

Goiter

Good Teeth

Headaches

Eyesight and Health

The Importance of Posture

Sunlight the Health Giver

Telltale Arteries

Tonsils and Adenoids

Rubberset Co., Newark, N.J. How to Save Your Teeth

The Scholl Mfg. Co., 211 W. Achiller St., Chicago.

United States Shoe Mfg. Co., 290 Lincoln St., Boston

111. Charts and Posters

U.S. Children's Bureau

Posture Charts for Girls

The Shelby Shoe Co., Portsmouth, Ohio. The Greatest Invention for Bad Foot Prevention.

IV. Slides and Motion Pictures

Clara Cleans Her Teeth	(Motion Pictures)	(1 reel)
Your Mouth	" "	(1 reel)
Posture Clinics	" "	(1 reel)
Sniffles and Snuffles	" "	(1 reel)
He Who Laughs Last	" "	(1 reel)
Inspect Your Engine	" "	(1 reel)
Take No Chances	" "	(1 reel)
Condemmed	" "	(1 reel)
By The Way	" "	($\frac{1}{2}$ reel)
A Fortunate Accident	" "	(1 reel)
Can't-Film Cancer	" "	(3 reel)
Public Health Twins at Work	" "	(1 reel)
Rickets	(Delineascope Films)	(74 frames)
The Health Sprite Speaks	" "	(21 frames)
Palace of Health	" "	(58 frames)
Red Blood	" "	(43 frames)
Beautiful Teeth	" "	(89 frames)
The Tale of the Two Tooth	" "	
Factories	" "	(71 frames)
Conserving Children's Eyesight	" "	(53 frames)
Corrective Physical Education	" "	(75 frames)
Magic Mixtures	" "	(63 frames)
No More Diphtheria	" "	(34 frames)
Salvaging Sam	" "	(34 frames)
From School To Work	" "	(64 frames)
The Bad Boy Makes Good	" "	(70 frames)
Youth and Life	" "	(63 frames)

Keeping Fit	(Delineascope Films)	(86 frames)
The Night Hawk	" "	(22 frames)
The Ancient Enemy	" "	(38 frames)
Tuberculosis Is Curable	" "	(64 frames)
Peter Meets a Menace	" "	(154 frames)
Jinks	" "	(84 frames)
The Road Called Health	" "	(47 frames)
Happy Healthland	" "	(78 frames)
Consequences	" "	(59 frames)
Tuberculosis in Childhood	" "	(39 frames)
How to Live Long	" "	(29 frames)
Working For Dear Life	" "	(67 frames)

Films of these may be obtained from the Massachusetts Department of Public Health.

Reference and Illustrative Material for Nutrition

1. Books

- Andress and Brown. Science and the Way to Health. Ginn and Co., Boston.
- Andress, Mace J. and Evans W. Health and Good Citizenship. Ginn and Co., Boston.
- Andress, Mace J. and Evans W. Health and Success. Ginn and Co., Boston.
- Brackett, Charles A. The Care of the Teeth. Harvard University Press. Cambridge, Mass.
- Crumbine, Samuel J. Milk the Most Nearly Perfect Food. The Williams and Wilkins Co., Baltimore, Md.
- Newmayer and Broome. The Way to Keep Well. American Book Co., New York.

11. Bulletins and Pamphlets

A. U.S. Government Bulletins Department of Agriculture Farmer's Bulletins

- 1450 - Home Baking
- 1374 - Care of Food in the Home
- 487 - Cheese and Its Uses in the Home
- 841 - Drying Fruit and Vegetables in the Home
- 717 - Food for Young Children
- 187 - How to Select Foods

Leaflets

- 17 - Cooking Beef According to the Cut
 - 39 - Eggs at any Meal
 - 28 - Lamb as You Like It
-

Miscellaneous Circulars

- 49 - A Guide for the Junior Homemaker
- 389 - Approximate Composition of Beef
- 471 - Eggs and Their Value as Food
- 469 - Fats and Their Economical Uses in the Home
- 84 - Vitamins in Food Material

Technical

- 105 - A Short Method of Calculating Energy, Protein, Calcium, Phosphorus and Iron in the Diet
- 8 - Dietary Scales and Standards for Measuring a Family's Nutritive Needs

Yearbook

- 927 - Nutritive Value of Fruits, Vegetables and Nuts

Department of Commerce

Bureau of Fisheries

- 48 - Canned Salmon: Pink and Chum
- 58 - Oysters: An Important Health Food

Department of Interior

Bureau of Education

- 2 - Diet for the School Child

Department of Labor

Children's Bureau

- 59 - What is Malnutrition?

Treasury Department

U.S. Public Health Service

- 809 - Weight and Height as an Index of Nutrition
- 907 - The New Baldwin-Wood Weight-Height-Age Tables as an Index of Nutrition

B. State Bulletins

Massachusetts Department of Public Health

- Cooking for Health
- Eating for Teeth
- Feeding the Adolescent
- Feeding the School Child
- Food Ways to Health
- Minerals
- The Tale of the Two Tooth Factories
- Vitamins

C. Commercial Bulletins

Amour and Co., Chicago, Ill.

Battle Creek Sanitarium, Battle Creek, Michigan

Corn Products Refining Co., P.O. Box 171, Trinity Station
New York.

Hershey Chocolate Co., Hershey Pa.

Household Refrigeration Co., 51 Chambers St., New York City.

Metropolitan Life Insurance Co., New York.

Diabetes

Overweight

All About Milk

Minute Tapioca Co., 1010 Monroe St., Orange, Mass.

New England and Food Dairy Council, Boston, Mass.

Leaflets:

Cooking with Milk

Do You Get the Most for Your \$10?

Diet Leaflets

Food for Children

Food for School Boys and Girls

Food Orders

Foods Rich in Proteins

Foods Rich in Minerals

Foods Rich in Fuels

Foods Rich in Vitamins

Fritz and Anna of Holland

Food, Teeth and Health

Food for Your Health

Pasteurized Milk

What Milk Will Do

Nucua Co., 297 Fourth Ave., New York City

Pillsbury Flour Co., Minneapolis, Minn.

Postum Cereal Co., Battle Creek, Mich.

Proctor and Gamble, Cincinnati, Ohio.

Quaker Oats Co., 80 E. Jackson St., Chicago, Ill.

Ralston Purina Co., St. Louis, Mo.

Sunkist Orange Co., Box 530, Station C, Los Angeles, Cal.

The Fleischman Co., 689-701 Washington St., New York City.

The Wheatena Co., Wheatenville, Rahway, N.J.

D. Other Bulletins

The American Red Cross, Washington, D.C. Food - Why?

What? How?

Roberts, Lydia J. Food Models, University of Chicago

Book Store, Chicago, Ill.

University of Wisconsin, Madison, Wisconsin. The Best

Food. Bulletin No. 342, Agriculture Experiment

Station

111. Charts and Posters

Food Selection and Meal Planning Charts. Superintendent of Documents, Washington, D.C. Set of 8 charts.

Weight for Height Charts. Bureau of Education, Department of the Interior, Washington, D.C.

U.S. Department of Agriculture

All for Health

Baseball Extra

Do You Get the Most for Your \$10?

Foods Rich in Proteins

Foods Rich in Minerals

Foods Rich in Fuels, etc.

For Health

Health Rules Series
 Milk for Health and Endurance
 Modern Pied Piper
 More Milk, More Brains, More Brawn
 Vitamin A. Vitamin B. Vitamin C. Posters. American Child Health
 Education, 370 Seventh Ave., New York City.

IV. Slides and Motion Pictures

Health Fairies.	Mass. Tuberculosis League, 1149 Little Bldg., Boston, Mass.
Princess Rosy Cheeks.	Mass. Tuberculosis League, 1149 Little Bldg., Boston, Mass.
Seven Keys.	Mass. Tuberculosis League, 1149 Little Bldg., Boston, Mass.
Town of Promise.	Mass. Tuberculosis League, 1149 Little Bldg., Boston, Mass.
Well Born.	Mass. Dept. of Public Health Motion Pictures.
Best Fed Baby.	" " " " " " "
A B C of Foods.	" " " " " " "
Tommy's Troubles.	" " " " " " "
Simplifying Motherhood.	Mass. Dept. of Public Health. Delineascope Films
Story of a Mother's Wise	46 frames. Part 11.
Palace of Health.	58 frames.
School Lunch.	33 frames.
Magic Marbles.	50 frames.
Food Friends	71 frames.
What's the Matter?	22 frames.
Road Called Health.	22 frames.
The Milky Way.	26 frames.
Consequences.	22 frames.
Peter Meets a Menace.	Mass. Dept. of Public Health Delineascope
How to Live Long.	Mass. Dept. of Public Health Delineascope

Reference and Illustrative Material for Community Health and Home Health

1. Books

Broadhurst. Home and Community Hygiene. J.B. Lippincott Co.,
Chicago.
 Burbank, Emily. Be Your Own Decorator. Dodd, Mead and Co.,
New York.
 Calkins, Charlotte W. A Course in Home Planning and Furnishing.
 Scott Forsman and Co., Chicago.
 Fales, Winnifred. A Simple Course in Home Decorating. Small
 Maynard and Co., Boston.
 Green, Lillian B. The Effective Small House. R.T. McBride Co.,
New York.

- Groves, Skinner and Swenson. The Family and Its Relationship.
J.B. Lippincott Co., Chicago.
- Justin and Rust. Problems in Home Living. J.B. Lippincott Co.,
Chicago.
- Kenyon, K. and Hopkins. Junior Home Furnishing and Decorating.
Armstrong Cork Co., Lancaster, Pa.
- Parsons, Frank A. Interior Decoration. Doubleday Page and Co.,
New York.
- Ritchie. Primer of Sanitation and Physiology. World Book Co.,
New York.
- Small, C.P. How to Know Textile. Ginn and Co., Boston.
- Taylor, Lucy L. Your Home Beautiful. G.H. Doran co., New York.
- Wilson, Lucy L. Everyday Manners for American Boys and Girls.
Macmillan Co., New York.
- Wright, Agnes F. Interior Decoration for Modern Needs. Fred
Stokes Co., New York.

11. Bulletins and Pamphlets

A. U.S. Government Bulletins Department of Agriculture Farmer's Bulletins

- 185 - Beautifying the Home Grounds
- 1513 - Convenient Kitchens
- 1219 - Floors and Floor Coverings
- 1497 - Methods and Equipments for Home Laundering
- 1474 - Stain Removal

Miscellaneous

- Federal Board for Vocational Education
Home Economics Series
- 86 - Health of the Family. A Program for the
Study of Personal, Home, and Community
Health Problems
- 189 - Van Denam, Ruth. The Well Planned Kitchen

B. State Bulletins

Massachusetts Department of Public Health
How Pasturization Guards Your Milk Supply

C. Commercial Bulletins

- Cleanliness Institute 45 E. 17th St., New York City.
A Clean House By Twelve O'clock
The Book About Baths
The 30 Day Loveliness Test
Metropolitan Life Insurance Co., New York.
Protect Your Child from Diphtheria
Helpful Suggestions about Infantile Paralysis
Measles
Prevention of Pneumonia
Rheumatic Diseases

Save Lives on Your Streets
 Scarlet Fever
 Tuberculosis
 The Conquest of Typhoid Fever
 The Health of the Worker
 Health Heroes - Edward Jenner
 Health Heroes - Florence Nightingale
 Health Heroes - Louis Pasteur
 Health Heroes - Walter Reed
 Health Heroes - Edward Livingston Trudeau

III. Charts and Posters

Amoskeag Textile Co., Manchester, N.H. Textile Exhibit.
 Care and Cleaning of Clothing. Goodyear Tire Co., Akron, Ohio.
 Cleanliness Institute. 45 E. 17th St., New York City.
 Colgate and Co., 105 Hudson St., Jersey City, N.J.
 Esmond Mills. New York City. Textile Exhibit.
 From Cocoon to Silk. Belding Bros., Rockwell, Conn.
 From Wool to Cloth. American Woolen Co.,
 Hoover Mfg. Co., North Canton, Ohio.
 Housecleaning Hints. Procter Gamble Co., Cincinnati, Ohio.
 Making Rugs from Flax. Clearflax Rug Co., Duluth, Mich. Exhibit.
 Olson Rug Co., Chicago, Ill.
 Silk Exhibit. T.A. Kelecher, 3513 10th St., Washington, D.C.
 Wonder Decoration. Bigelow Hartford Co., Thompsonville, Conn.

IV. Slides and Motion Pictures

Public Health Twins at Work	(Motion Pictures)	(1 reel)
No More Diphtheria	(Delineascope Films)	(34 frames)
Salvaging Sam	" "	(34 frames)
From School to Work	" "	(64 frames)
The Bad Boy Makes Good	" "	(70 frames)
Youth and Life	" "	(63 frames)
The Ancient Enemy	" "	(38 frames)
Tuberculosis Is Curable	" "	(64 frames)

Reference and Illustrative Material for Child Care

1. Books

Bryant, Sara Cone. How to Tell Stories to Children. Houghton-Mifflin Co., Boston.
 Delano, Jane A. and Strong, Anna H. Home Hygiene and Care of the Sick. American Red Cross Text Book, reprint of Elementary Hygiene and Home Care of the Sick, by Delano and McIsaac. P. Blakeston's Son and Co., Philadelphia.

- Haviland, Mary S. Character Training in Childhood. Small, Maynard and Co., Boston.
 Holt, L. Emmett, Care and Feeding of Children. Revised Ed. D. Appleton and Co., New York.
 Rose, Mary S. Feeding the Family. Rev. Ed. Macmillan Co., New York.
 Turner, Morgan and Collins. Home Nursing and Child Care.

11. Bulletins and Pamphlets

A. U.S. Government Bulletins

Department of Agriculture

Farmer's Bulleting

717 - Food for Young Children

42 - Good Food Habits for Children

Department of Interior

Bureau of Education

2 - Diet for the School Child

12 - Sleep. Health Education Series.

Department of Labor

Children's Bureau

65 - Child Care and Child Welfare. Home Economics Series. No.5.

8 - Infant Care. Rev. Ed.

10 - Out of Babyhood into Childhood

30 - The Preschool Age

11 - Why Sleep?

B. State Bulletins

Massachusetts Department of Public Health

Diet for Children. Birth to Ten Years

Habit Training for Children

Is This Your Child?

Problem of Sweets for Children

Save Those Baby Teeth

Massachusetts Department Of Mental Diseases

Mental Hygiene Leaflets

C. Commercial Bulletins

Metropolitan Life Insurance Co., New York.

Baby's Book

The Child

Layette Patterns (set)

Metropolitan Mother Goose

Out of Babyhood into Childhood

So is the Tree Inclined

D. Other Bulletins

- American Child Health Association, 370 Seventh Ave., New York.
 A Week of Meals for Children from Two to Six Years
 The Baby in the House of Health
 The Runabouts in the House of Health
 Griffith, Eleanor G. Cho-Cho and the Health Fairy. Macmillan
 Co., New York.
 Roberts, Lydia. What is Malnutrition? Bur. Pub. No. 59.
 Children's Bureau, U.S. Dept. of Labor, Washington, D.C.
 Rose, Mary S. Feeding of Young Children. 2nd series, No. 10.
 Teachers College, Columbia University, New York City.

111. Slides and Motion Pictures

The Healthy Baby	(Delineascope Films)	(136 frames)
The Kid Comes Through	" "	(42 frames)
Rickets	" "	(75 frames)
Trails That Lead to Mother and Baby	" "	(73 frames)
Health of the Preschool Days of Betty Jones	" "	(60 frames)
Foreign Mothers of Little Americans	" "	(44 frames)
The Story of Motherwise	" "	(46 frames)
What a Child Should Know Entering Kindergarten	" "	(29 frames)
Which Johnny is Yours	" "	(31 frames)
Conserving Children's Eyesight	" "	(44 frames)
Weights of Children	" "	(31 frames)
Milky Way	" "	(44 frames)
Our Children	(Motion Pictures)	(2 reels)
Sun Babies	" "	(1 reel)
Best Fed Babies	" "	(1 reel)
Big Gains for Little Bodies	" "	(1 reel)
Priceless Gift of Health	" "	(1 reel)

D. Other Publications
 American Child Health Association, 370 Seventh Ave., New York
 A Week of Health for Children from Two to Six Years
 The Baby in the House of Health
 The Household in the House of Health
 Griffith, Eleanor G. The Child and the Health Factor. Macmillan
 Co., New York
 Roberts, Lydia. What is Maternity? Rev. Pub. No. 12
 Children's Bureau, U.S. Dept. of Labor, Washington, D.C.
 Rose, Mary A. Feeding of Young Children. 2nd edition, No. 10.
 Teachers College, Columbia University, New York City

III. Studies and Motion Pictures

The Healthy Baby	(Lithographic Prints)	128 frames)
The Mid-Century Through	"	42 frames)
Mid-Century	"	78 frames)
Yvette That Lead to Mother	"	72 frames)
and Betty	"	
Health of the Pre-school Days	"	80 frames)
of Betty Jones	"	
Parents Mothers of Little	"	44 frames)
Amor Jones	"	
The Story of Motherhood	"	46 frames)
What a Little World Know	"	38 frames)
Experiencing Motherhood	"	
When Johnny's Love	"	31 frames)
Concerning Children's Experiences	"	44 frames)
Parents of Children	"	31 frames)
Little Way	"	34 frames)
Our Children	"	2 frames)
Our Babies	"	1 reel)
Best Test Babies	"	1 reel)
My Health for Little Babies	"	1 reel)
Children's Life of Health	"	1 reel)

BOSTON CONTINUATION SCHOOLCOURSE OF STUDYINACADEMIC SUBJECTSFORMACHINE SHOP AND HOME-MAKING GIRLS¹

In machine shop academic work related mathematics and drawing properly require about 60 per cent of the time. The rest of the time is devoted to English work, oral and written, based on topics in civics and hygiene, common errors and simple correspondence.

Week	English	Civics	Hygiene
1...	Spelling from selected list.	Government and laws. 1. Meaning. 2. Necessity. 3. Kinds. 4. Duties of citizens regarding laws.	Personal health a. Value b. Preparation for day's work.
2...	Based on Hygiene.	Government of self. Self-control. Development of will power. Value of right living.	Shop don'ts Ref.: "How to Run a Lathe," p. 61.
3...	Based on Civics.	Foundation of government 1. Dependent on citizens.	Aids to health. a. Value of fresh air. b. Value of exercise. c. Value of rest.
4...	Oral and written composition. Value of Machinery in Industry.	Citizenship a. Native born. b. Alien. c. Naturalization.	The Eye. a. Value of eyesight. b. Care of eyes. c. Treatment of defects.

1

Taken from page 143 School Document No. 4 - 1919 Boston Public Schools. Note by writer of thesis.-With 60 per cent of the 120 minutes taken out for related mathematics time and drawing it leaves approximately only 50 minutes for the 3 other subjects. In some departments 30 minutes is given to civics or hygiene every other week thereby leaving 20 minutes for English correlations.

BOSTON EDUCATION SCHOOL

COURSE OF STUDY

IN

ACADEMIC SUBJECTS

FOR

MACHINE SHOP AND HOME-SCIENCE TEACHERS

In machine shop students work related mathematics and drawing properly reports about 80 per cent of the time. The rest of the time is devoted to English work, oral and written, based on topics in civics and hygiene, common sense and simple correspondence.

Week	English	Civics	Hygiene
1...	Spelling from selected of list.	Government and laws. 1. Democracy. 2. Necessity. 3. Rights. 4. Duties of citizens regarding laws.	Personal health a. Value b. Preparation for day's work.
...	Based on hygiene.	Government of self. Self- control. Development of will power. Value of right living.	Shop duties a. Value of time b. Value of order.
3...	Based on Civics.	Foundation of government 1. Government an evil- less.	Aids to health. a. Value of fresh air. b. Value of exer- cise. c. Value of rest.
...	Oral and written composition. Value of machinery in industry.	Citizenship a. Duties born. b. Rights. c. Nationalization.	The Eye. a. Value of eye- sight. b. Care of eyes. c. Treatment of diseases.

Taken from page 143 School Document No. 4 - 1916 Boston Public Schools.
Note by writer of English - With 80 per cent of the 120 minutes taken
out for related mathematics and drawing is leaves approximately only
30 minutes for the 3 other subjects. In some departments 80 minutes is given
to Civics or hygiene nearly every week thereby leaving 80 minutes for English
composition.

Week	English	Civics	Hygiene
5...	Based on Civics.	Columbus Day	The ear. a. Value. b. Care. c. Effects of noise.
6...	Vocational Work.	Citizens. a. Rights b. Duties	The nose. a. Use b. Care. c. Nose bleed d. Tonsils e. Adenoids
7...	Vocational Work.	The family. 1. Authority and duties of parents. 2. Debt of children to parents.	Rules of health. Ref.: "Course in Hygiene."
8...	Based on Hygiene	Duties of parents to children.	The teeth. a. Number. b. Construction. c. Care. d. Treatment.
9...	Oral and written exercise. Business letter: a. Heading. b. Salutation. c. Body. d. Conclusion.	Rights of parents or duties of children. 1. Obedience. 2. Helpfulness. 3. Support.	The skin and hair. a. Use. b. Care. c. Some diseases of each.
10...	Vocational Work.	Election day. Machinery of election.	Hands and feet. a. Care. b. Tight shoes.
11...	Based on Civics.	The school: Its relation to the home.	The blood. a. Composition. b. The heart. c. Veins and arteries. d. Blood poisoning.
12...	Correct speech. Common errors. Use of auxiliary with "seen" and "done". Use of "saint" and "he don't".	Government of schools. School Committee. Superintendent. Master. Teacher. Duties of teacher and pupil.	Recreation and amusements. a. Kinds. b. Need of. c. Value of.

24				
25	English	Division	Hygiene	
26	Based on Division	Columbus Day	The arm. a. Veins. b. Lungs. c. Effects of noise.	
27	Vocational Work	Division. a. Hygiene b. Diseases	The nose. a. Nose b. Cavity c. Nose bleed d. Tonsils e. Adenoids	
28	Vocational Work	The family. 1. Anatomy and duties of parents. 2. Duty of children to parents.	Water of mouth. Mouth hygiene in Hygiene.	
29	Based on Hygiene	Duties of parents to children.	The teeth. a. Number. b. Construction. c. Care. d. The gum.	
30	Oral and written exercises. Business letter. a. Heading. b. Salutation. c. Body. d. Conclusion.	Rights of parents of in- fants of children. 1. Hygiene. 2. Nutrition. 3. Hygiene.	The skin and hair. a. Skin. b. Hair. c. Skin diseases of scalp.	
31	Vocational Work	Election day. Mechanism of election.	Hands and feet. a. Care. b. Tying shoes.	
32	Based on Division	The school: Its relation to the home.	The blood. a. Composition. b. The heart. c. Veins and ar- teries. d. Blood circulation.	
33	Correct speech. Use and errors. Use of explanatory with "yes" and "no." Use of "like" and "as" and "so".	Government of schools. School Committee. Super- intendent. Teacher. In- spector. Duties of teacher and pupil.	Respiration and diges- tion. a. Lungs. b. Stomach. c. Vagus of stomach.	

Week	English	Civics	Hygiene
13..	Based on Hygiene.	Community welfare. Social service. Duties toward neighbors.	Ventilation. a. Need. b. In house. c. In shop.
14..	Spelling from select-Christmas Day. ed list.		Sleep. a. Necessity. b. Conditions for good sleep.
15..	Based on Civics.	Development of Port of Boston. a. Necessity. b. Advantages.	Digestion. a. Foods easy to digest. b. Foods difficult to digest. c. Advice on eating.
16..	Vocational Work.	Relations between employer and employee. Rights and duties of each.	Temperance and its value.
17..	Vocational Work.	Relations of employee to his fellow-workers. a. Harmony. b. Cooperation. c. Fair play.	Drug habit and patent medicines.
18..	Correct speech. Use of may and can.	Citizenship. a. Meaning of "citizen." b. Aliens. c. Naturalization. 1. Meaning. 2. Conditions.	Tobacco and cigarettes.
19..	Based on Civics.	Advantages of citizenship. Rights and their enjoyment.	Clothing and its purpose.
20..	Based on Shop Science. Tools.	Duties of citizens. a. Obedience to law. b. Defense of country. c. Industry. d. Interest in public affairs.	First aid.

Page	English	Division	Hygiene
12..	Based on Hygiene.	Community welfare, Social service, Public houses, neighbors.	Ventilation. a. Fresh. b. In houses. c. In shops.
14...	Spelling from select-Christmas Day as first.		Sleep. a. Necessity. b. Conditions for good sleep.
15..	Based on Hygiene.	Development of Port of Boston. a. Necessity. b. Advantages.	Digestion. a. Foods easy to digest. b. Foods difficult to digest. c. Advice on eating.
16..	Vocational Work.	Relations between employer and employee, rights and duties of each.	Temperance and its value.
17..	Vocational Work.	Relations of employee to his fellow-workers. a. Harmony. b. Cooperation. c. Fair play.	Drug habit and general medicine.
18..	Correct speech. Use of say and can. a. Meaning of "certain." b. Allusion. c. Metonymization. d. Metonymy. e. Conditions.	Citizenship.	Tobacco and cigarettes.
19..	Based on Hygiene.	Advantages of citizen-ship, rights and their enjoyment.	Alcoholism and its purpose.
20..	Based on Good Self-ness, Temperance.	Duties of citizens. a. Obedience to law. b. Balance of economy. c. Industry. d. Interest in public affairs.	First aid.

NEW YORK CITY CONTINUATION SCHOOLSHEALTH EDUCATIONTOPICAL OUTLINEFIRST YEAR

1. The meaning of health.
2. Health habits and standards.
3. Growth, weight and physique-indication of health.
4. Nutrition-need for food-classification of foods.
5. Nutrition-vitamins and mineral substances.
6. Nutrition-balanced meals-good eating habits.
7. Exercise.
8. Fresh air-and ventilation.
9. Posture-standing, sitting and walking.
10. Posture-how to secure correct posture.
11. Eyes, care of.
12. Fatigue.
13. Sleep and rest.
14. Elimination and body poisons.
15. Care of hair and scalp.
16. Rules of Health
17. Cleanliness.
18. Care of feet.
19. Care of ears, nose and throat.
20. Dental hygiene.
21. Stimulants and narcotics.
22. Infection.
23. Colds.
24. Tuberculosis.
25. Seasonal hygiene.
26. Dep't. of Health.
27. Prevention of disease.
28. Importance of the periodic physical examination.
29. Preparation of the pupil for medical examination.
30. The prevention of street accidents.
31. Safety and industrial hygiene-the part of workers in prevention of accidents while at work.
32. Pure Food and Drug Laws.
33. Procedure to be followed in case of injury at work under Workmens' Compensation Law.
34. First aid-nature and treatment of wounds.
35. First aid-fainting, convulsions and burns.
36. First aid-resuscitation from electrical shock, gas asphyxiation, drowning and smoke fumes.

Note- In New York, the age requirement for continuation school pupils is 14-18, two years longer than in Massachusetts. It is possible with such large groups to divide the work, in health education, into two parts- first year, personal health, and second year, community health. Both of these outlines are the latest developments in that field as a result of a study of the health conditions of the working child made in 1924. In 1930 a comprehensive program of health service and health education was initiated in the West Side Continuation School to be followed by the other continuation schools in that city.

NEW YORK CITY COMMISSIONERS OF HEALTH

HEALTH EDUCATION

SPECIAL COURSE

FIRST YEAR

1. The meaning of health.
 2. Health habits and standards.
 3. Growth, weight and physical condition of health.
 4. Nutrition—need for food—classification of foods.
 5. Nutrition—vitamins and mineral substances.
 6. Nutrition—balanced meals—good eating habits.
 7. Exercise.
 8. Fresh air and ventilation.
 9. Posture—standing, sitting and walking.
 10. Features—how to observe correct posture.
 11. Eyes, ears, nose.
 12. Teeth.
 13. Sleep and rest.
 14. Nutrition and body poisons.
 15. Care of hair and scalp.
 16. Rules of health.
 17. Diseases.
 18. Care of feet.
 19. Care of eyes, nose and throat.
 20. Dental hygiene.
 21. Stimulation and relaxation.
 22. Infection.
 23. Hygiene.
 24. Tuberculosis.
 25. Personal hygiene.
 26. Hygiene of health.
 27. Prevention of disease.
 28. Importance of the periodic physical examination.
 29. Preparation of the pupil for medical examination.
 30. The prevention of street accidents.
 31. Safety and industrial hygiene—the part of workers in prevention of accidents while at work.
 32. Home food and drug laws.
 33. Diseases as we follow in case of injury at work under workmen's compensation law.
 34. First aid—nature and treatment of wounds.
 35. First aid—burns, scalds and sunburn.
 36. First aid—resuscitation from electrical shock, gas asphyxiation, drowning and smoke fumes.
- Note: In New York, the age requirement for continuation school is 14-15, two years longer than in Massachusetts. It is possible with such large groups to divide the work, in health education, into two years—first year, personal health, and second year, community health. Both of these outlines are the latest developments in the field. Both are a result of a study of the health conditions of the working class made in 1934. In 1935 a comprehensive program of health survey and health education was initiated in the West Side Community School to be followed by the other continuation schools in that city.

NEW YORK CITY CONTINUATION SCHOOLSHEALTH EDUCATIONTOPICAL OUTLINESECOND YEAR

1. Meaning and importance of community health, sanitation and safety.
2. Federal agencies for promotion of health, sanitation and safety.
3. State and Municipal agencies for the promotion of health, sanitation and safety.
4. Private welfare organizations for the promotion of health, sanitation and safety.
5. Right community health and safety habits.
6. Control of communicable diseases, quarantine, vaccination, isolation, etc.
7. Food distribution in the community; protection of; Pure Food and Drug Law.
8. Food-refrigeration; the fly problem.
9. Water Supply- source; purification of; filtration.
10. Milk Supply; how safe-guarded, pasturization.
11. Disposal of wastes, garbage and refuse.
12. Keeping the city clean, importance of for community health.
13. Health Dep'ts; Federal, State and City.
14. Federal and state industrial laws for the protection of workers - what the worker has a right to expect.
15. The Health Board and its work; the health laboratory; control of communicable disease.
16. The Health Board and its work; supervision of food supplies, inspection of general sanitary conditions.
17. The Health Board and its work; clinics, dispensaries, medical examinations.
18. The Health Board and its work; the public health nurse, educational activities.
19. Parks and athletic fields, baths and swimming pools, need for, care of.
20. Survey of community health conditions in your own community.
21. Correct living conditions and hygiene in the home.
22. Protection of the worker; factory hospital rooms, visiting nurse.
23. First Aid for the worker; First Aid cabinet, calling an ambulance, notifying police.
24. Protection of the worker; State Labor Law, Sanitary Code; provision of.
25. Occupational hazards, poisons, fumes, foul air, etc.
26. Occupational diseases, protection against lead, arsenic, phosphorous and mercury.
27. Use of mechanical protective devices, respirators, gloves, goggles, shoes, etc.
28. Special provisions in State Industrial laws for safeguarding health of women and minors.
29. Anti-tuberculosis measures with reference to occupations, such as tailoring, tobacco industry, stone cutting and metal working.
30. How to dress for your job.
31. Fire prevention.
32. Patent medicines, nostrums, and quacks.
33. Safety in the street; causes and prevention of accidents.
34. Traffic laws for pedestrians and drivers.
35. Sex hygiene (optional); the life cycle as a fundamental phenomenon of all living matter, sex as simple natural part of human experience. Venereal disease.

36. Healthful working conditions and proper sanitation in factories and offices; correct temperature, individual towels, spitting, lockers, washrooms, etc.

N. Y. City Continuation Schools

Homemaking Division-Foods and Nutrition Department¹

Lesson No. 1 Subject: An Adequate Breakfast for a Working Girl

Academic Work

Perservance

Quotation "Like a postage stamp, a man's value depends upon his ability to stick to a thing until he gets there."

Aims of Lesson

1. To learn about food relations to health.
2. To learn how to select a simple nourishing breakfast which is quickly prepared.
3. To learn the necessity of an adequate breakfast.
4. To learn how to estimate the cost of a breakfast.

Information----Silent Reading and Discussion

Most working girls have their supper between 6 & 7 o'clock in the evening. They usually sleep 8 & 9 hours during the night. During this long period nothing is taken into the stomach, which has finished its work of changing the supper into the blood which nourishes the body. Therefore the stomach needs a new supply of material to work on. We eat our breakfast so that we may have strength when we start our day's work.

Girls who do not eat breakfast begin to feel hungry about 10 o'clock. They frequently have headaches and often are very much underweight. The latter condition sometimes leads to illness of a serious nature. The body needs a certain amount of food each day and it is best to eat it in three meals, taken at regular intervals.

An adequate breakfast consists of fruits, (either fresh or dried) cereal, toast, or rolls and milk, cocoa for children and coffee if desired for adults. Another might be of fruit, egg, toast or rolls and a beverage with plenty of milk.

In buying fruits for breakfast we will find that the dried fruits such as prunes, figs, pears, and peaches are cheaper than fresh fruits. They can be procured at all seasons and have just as much food value as fresh fruits.

The cooked cereals are also more economical than the dry cereal and if prepared the night before can be heated very quickly.

They must have mineral matter, to build and repair bones and muscles, to make blood, and to aid digestion and to regular the heart action. (Fruit, cereal, milk, eggs).

The vitamins which are body regulators and growth producers are also found in those foods.

These girls must have sufficient energy to move, walk, dance, and work. (Bread, cereal, cocoa, sugar, butter) They must have material protein to build the muscles of the body and repair them. (Milk, beverages with lots of milk and eggs.) They need plenty of water to flush and clean the digestive track and to keep the blood liquid.

English

1. Write a plan for preparing an adequate breakfast so that a girl will not be delayed in the morning.
2. Give the meanings of these words:- Adequate, cereal, beverages, energy.

Mathematics

3. If you buy

1 pkg. oats	@ 15¢	3 lb. pkg. sugar-per pkg.	@ 21¢
2 lbs. Prunes	@ 15¢	1 quart milk-per qt.	@ 11¢
1 lb. cocoa	@ 30¢	1 loaf of bread	@ 11¢

How much change would you have from \$5.00?

4. How many hours is it from supper to lunch?
5. Estimate cost of breakfast served to six people. Consult.

Hygiene

6. Give three reasons why an adequate breakfast is necessary to every working girl.
7. Why should fruit be washed before serving?
8. Why is it better to buy bottles of milk for your children?
9. Give two reasons why hands should be washed before eating.
10. What food groups are found in this breakfast?

Civics

A man said, "This is a free country. I can do anything I please." Is this statement correct? Give reason for your answer.

Vocational Guidance

Discuss the importance of regularity and punctuality.

1. What happens if you are five minutes late to catch a train?
2. Who is the loser?
3. Who gains by your being to work or school early each day? Why?

Safety Hygiene

1. What is meant by "Compensation"?
2. What is meant by "Workman's Compensation Law"?
3. What department of the state has charge of Workman's Compensation?

ABSTRACT OF THE REPORT
OF THE
COMMITTEE ON THE SCHOOL CHILD

This report is concerned with the health of 27,000,000 children in the schools of the United States. Although children spend only four to six hours out of each twenty-four of the day in school, these few hours are of great importance in developing and conserving child health.

Introduction

Society depends upon the health of each one of its members for its most complete realization and prosperity.

John Dewey has said, "What the best and wisest parent wants for his own child -- that must the community want for all its children."

The school is the community's official and supported agency for organizing and directing the education and health and care of the child of school age. Its health program should be:

- a. Provide healthful surroundings and administration.
- b. Secure the best attainable health of all pupils through co-operative effort.
- c. Provide and encourage healthful activities.
- d. Inculcate favorable attitudes and ideals toward health through sound basic knowledge.

In performing this service to child health it should co-operate with the home without taking away the fundamental privilege or responsibility from that home in relation to its children.

The conception of health presented in this report is not one of physical health alone, but of mental, emotional and social health as enveloping concept of health the Committee on the School Child pleads that the school be conscious and appreciative of the child as an individual. The child must be seen as a whole. Send the whole child to school. Trained as a whole while in school, and sent out when leaving school as a whole with the best that education can give him that he may be more adequately equipped to live life abundantly.

A COMPREHENSIVE SCHOOL HEALTH PROGRAM DEMANDS THE FOLLOWING MINIMUM ESSENTIALS:

1. A sanitary and healthful school plant located, constructed, equipped and operated according to scientific health principles.

This includes:

- A. Lighting both natural and artificial to prevent eye strain or development of defective vision.
- B. Adequate heating and ventilation plants efficiently operated.
- C. Equipment, - particularly chairs, tables and blackboards- constructed to fit children physically.
- D. Playfields and gymnasiums of adequate size, the latter properly equipped with showers, lockers, and dressing rooms.
- E. Provision for sanitary drinking water, toilet and hand-washing facilities.
- F. Good janitorial service.
- G. Adequate fire protection.

11. A school program so arranged that the physical, mental and emotional health of the child will be protected and improved.

A. Physical Health

1. A progressive educational policy provides a recreational as well as an educational program throughout the year. The long summer vacation has become a major problem in child education. Rightly managed it becomes an asset. The committee recommends that every school assume the responsibility of providing for the child during his summer vacation opportunities for healthful and creative activities.
2. Programs shall be so arranged that there will be no diminishing efficiency on the part of the child from month to month. This involves regulation of the length of school terms. The length of the school day, supervision of recesses and arrangement of the program so that the most difficult work should be given at the most favorable periods of the day are also important.
3. Home study should be eliminated in the first six elementary grades and is considered of doubtful value even in high school. Supervised study at school during the school day is more satisfactory.

B. Mental Health

1. The curriculum should be built around youthful interests instead of those of adults.
2. Pupils grouped on basis of ability.
If a pupil is placed in a group where he is either not given activities that sufficiently stimulate him or he is given tasks that are much too difficult for him to achieve a certain degree of mastery, bad mental health is bound to result. Pupils who are thus wrongly grouped soon develop other symptoms of maladjustment which exhibit themselves in introvert activities of boisterousness, defiance and the like.
3. Tests and examinations should be used only in helping pupils understand themselves and their progress in learning and their limitations and to enable teachers to determine the efficiency of certain methods of study and instruction.
4. An extra-curricular social program should furnish opportunity for learning habits of social adjustment through healthful outside activities.
5. Discipline that respects the personality of the child and helps him to an inner adjustment, to recognize his own conflicting desires and to substitute socially valuable behavior for those of his wishes which are ethically or esthetically undesirable.
6. Conditions which arouse the emotions, such as nagging, quarrelling, fear, and over-excitement should be avoided. An exacting, over-conscientious nagging teacher may add to the fatigue of children. Freedom, happiness, encouragement, sympathy, help to prevent fatigue.

III. Adequate Health Service

This includes:

- A. The summer round-up of the preschool child -- which provides for the examination in the early spring of all the preschool children about to enter school the following fall, notifies the parents as to the defects discovered with follow-up work to secure correction of the defects, and a second examination in the early fall to check corrections.
- B. Periodic Health Examinations -- Each school pupil should have an annual health examination. It is a law in Massachusetts.

More money should be paid school physicians and they should be required to spend not less than five minutes on each examination. Average salary of school nurse ('29) \$1572.50. Average salary for part-time physicians ('29) \$525. School physicians are obligatory in Massachusetts. The health examination should be made by the family physician or the school physician and the parent should be present if possible. The teeth should be examined by a dentist or dental hygienist twice a year.

- C. Daily Health Inspection -- Daily health inspection of all pupils in order to prevent and control communicable disease.
- D. Weighing -- Weighing and measuring of pupils each month not as a scientifically dependable index of health, but as a measure of growth and development.
- E. Immunization -- This is primarily a preschool problem. The most desirable time for immunization against small-pox is before six months of age, as soon as the infant's nutritional status is well established. Vaccination against diphtheria is advisable after six months of age. Immunization against both of these diseases is the responsibility of the parent, but should be required by Board of Health and school regulation. Entrance to junior high school is the time for re-vaccination against small-pox. The school should promote immunization by education.
- F. Follow-Up Work -- The function of the school medical service is not to make diagnosis nor to give treatment, but to assist the school in its work of education and to refer to parents and family physician children with remedial defects. In this connection the co-operative help of the school nurse and visiting teacher is influencing the parents to have the remedial work promptly attended to is extremely important.

IV. Adequate Health Curriculum

Pupils leaving high school should have knowledge of the structure and function of the human body, the biology of reproduction, knowledge and skills which will enable them to co-operate in the reduction of accidents, knowledge and skill in first aid, knowledge of the effects of tobacco, alcohol and other narcotics and patent medicines on the individual human organism and on society, freedom from superstition on subjects concerning health and disease, respect for the scientific method of their own assets and liabilities in bodily equipment.

- A. Safety Education -- In any consideration of child health and protection the problem of securing safety from physical danger is of fundamental importance. Statistics show that approximately 18,000 of the 100,000 deaths by accident in 1929 were children. Figures compiled during the last seven years, which is about the period during which intensive work in safety education has been carried on in the schools, show that while adult mortality has increased 32 percent the accident mortality of children has remained stationary in spite of the increase of population. This is the one bright spot in the picture of accident statistics.
- B. Social Hygiene -- The objectives of the educational program of social hygiene are: (1) to secure an understanding of sex in life necessary for sound personal and social adjustment; (2) to promote wholesome, scientific attitudes towards matters of sex; (3) to establish a high, constructively motivating ideal of marriage and family life; (4) to foster knowledge and practice of personal sex hygiene, including knowledge of the venereal diseases; and (5) to secure acceptance of responsibility for a high standard of sex conduct.
- C. Nutrition Teaching -- Nutrition should be given as a part of the health education program in every school grade.

Health leaving high school should have knowledge of the structure and function of the human body, the biology of reproduction, knowledge and skills which enable them to co-operate in the production of offspring, knowledge and skill in first aid, knowledge of the effects of tobacco, alcohol and other narcotics and violent death, ideas on the individual human organism and on society, freedom from superstition or religious concerning health and disease, respect for the scientific method of study, own assets and liabilities in health equipment.

Safety Education -- In any consideration of child health and protection the problem of making safety from physical danger is of fundamental importance. Statistics show that approximately 18,000 of the 100,000 deaths by accident in 1940 were children. Figures compiled during the last seven years, which is about the period during which intensive work in safety education has been carried on in the schools, show that while child mortality has increased 35 percent the accident mortality of children has remained stationary in spite of the increase of population. This is the one bright spot in the picture of accident statistics.

Social Studies -- The objectives of the educational program of social studies are: (1) to secure an understanding of the social sciences; (2) to develop scientific habits of mind; (3) to develop a sense of social responsibility; (4) to develop knowledge and practice of personal and social conduct; (5) to develop knowledge and practice of social responsibility; and (6) to develop a sense of social responsibility for a high standard of social conduct.

Physical Education -- Attention should be given to a part of the health education program in every school grade.

V. Administration and Organization of School Health Work

A. Functions and Control

1. This activity should be under the full control of the board of education, and administered exclusively by educational authorities, with the closest co-operation with other health agencies of the community and state. In Massachusetts cities have option by law. In ten cities, school health is under Board of Health.
2. The head of the department should be:
 - a. An able administrator ranking as a director or assistant superintendent with experience in education and preparation as a school administrator;
 - b. A physician with educational training and experience;
 - c. The principal, both in elementary and in secondary schools is the responsible administrative officer in relation to the complete health program.

B. Elementary Schools

1. Health education in the elementary schools should be in charge of the elementary grade teacher under the sympathetic guidance of an efficient advisor or supervisor of health education, who has had special and adequate professional training for this complex task.

C. Secondary Schools

1. A school health committee is one important means of co-ordinating all aspects of health education in secondary schools.
2. Some one person should be delegated by the principal to keep in contact with all phases of the health program and to promote it in every way possible.
3. This health counsellor or co-ordinator should:
 - a. See that health is given its proper place in the curriculum.
 - b. Study all available data relating to health in the school.
 - c. Plan the most effective use of the school health service.
 - e. Maintain adequate cumulative records of each pupil's health history.

- f. On the basis of information thus assembled, advise with reference to modification of policies.

D. Personnel

1. School physicians
 - a. Should be graduates in medicine.
 - b. Should have some training in public health.
2. School Dentist and Dental Hygienists
 - a. There should be a school dentist if possible, preferably in full time service.
In Massachusetts if treatment is given it should be under Board of Health.
3. Nurses
 - a. Need for higher standards in training.
Desirable Nursing standards:
 1. Graduation from high school
 2. Graduation from accredited school for nursing
 3. Registration in Massachusetts
 4. Post-graduate work in public health
 5. A course in school hygiene
 6. A course in health education
4. Oculists
5. Psychologists or Psychological Counsellors
 - a. One psychologist is recommended for every 1,000 to 1500 pupils in the elementary school and one for every 500 to 600 pupils in the secondary school, preferably to be attached to separate schools rather than to a central office.
 - b. Should have at least two years graduate training in a school of education.
6. Visiting Teachers
 - a. The visiting teacher should have much of the responsibility ordinarily designated to an attendance officer.
 - b. One visiting teacher for every 500 pupils.
7. School Nutritionists
 - a. In smaller schools the duties of the school nutritionist can be taken care of by the home economics teacher. If she is to be in charge of the school lunch room she should be trained in institutional management.
8. Supervisor of Health Instruction
 - a. The supervisor in charge of health instruction should hold a master's degree with a major in health education.
 - b. She should be well trained in the biological sciences and in modern trends in supervision and curriculum building.
 - c. She should have had at least three year's experience in classroom teaching.

2. On the basis of information thus assembled, studies with reference to modification of policies.

D. Personnel

1. School physicians
 - a. Should be qualified in medicine.
 - b. Should have some training in public health.
2. School Dentist and Dental Hygienists
 - a. There should be a school dentist at possible intervals in 1915 time service.
 - b. In Massachusetts, if treatment is given it should be under Board of Health.
3. Nurses
 - a. Need for higher standards in training.
 - b. Need for dental standards.
 - c. Graduation from high school.
 - d. Graduation from accredited school for nursing.
 - e. Registration in Massachusetts.
 - f. Post-graduate work in public health.
 - g. A course in school hygiene.
 - h. A course in health education.

E. Buildings

1. Requirements on Physical Education Commission
 - a. One playground is recommended for every 1,000 to 1,500 pupils in the elementary school and one for every 200 to 300 pupils in the secondary school, preferably to be located in separate schools rather than to be shared with other schools.
 - b. Should have at least two large outdoor playgrounds in a school of education.

F. Visiting Teachers

- a. The visiting teacher should have much of the responsibility originally assigned to an attendance officer.
- b. One visiting teacher for every 300 pupils.

G. School Nutrition

- a. In smaller schools the duties of the school nutritionist can be taken care of by the home economics teacher. If one is to be in charge of the school lunch room she should be trained in nutritional management.

H. Supervision of Health Instruction

- a. The supervisor in charge of health instruction should hold a master's degree with a major in health education.
- b. She should be well trained in the biological sciences and in modern methods in supervision and curriculum building.
- c. She should have had at least three years' experience in classroom teaching.

9. Health Co-ordinator or Counsellor

- a. The health co-ordinator or counsellor in the high school should be the person best qualified by natural traits, professional training and experience.

10. Classroom Teachers

- a. Health instruction should be given by the regular classroom teachers in elementary schools. All teachers in high schools should make contributions to health instruction, under the guidance of the health education supervisor, counsellor or co-ordinator, who has had adequate professional training. Teachers now in service without specific training for this teaching should be given in-service training.

11. Teacher of Physical Education

- a. The teacher of physical education should be a well-trained full-time staff member.

E. Cost

Recent surveys show that the cost of health program averages for \$2.50 to \$3.00 per pupil, in cities for 10,000 to 100,000 population. A few cities are spending annually per pupil from \$5.00 to \$8.00 for their health program.

Massachusetts falls below this standard spending only \$1.56 ('29 - '30)

Some educators are predicting that ten per cent of the educational budget will not be considered excessive when the complete program is attained.

VI. Health Needs of Special Groups of Schools

Certain groups of schools report less favorably on their health programs than do city school systems. The outstanding need in these special situations seems to be a keen realization of the educational requirements in these schools and the proper financial support of the program as it is planned.

A. Rural Schools

1. Most rural schools suffer from poverty and isolation of their communities.
2. They need well-trained teachers before the health program can be fundamentally improved.
3. Even where there are adequate health examinations for rural children there is lack of follow-up remedial work.
4. Consolidated schools should lead to better health programs in rural communities.

5. A traveling service sponsored by the state department of education promises much to rural communities. Mobile medical dental and mental hygiene clinics have rendered noteworthy service in rural communities.
6. The school nurse may be delegated to serve a group of schools in a county or region.
7. Many community agencies may co-operate with the rural schools for the better health of the school children. These should be centralized under the control of the state department of education.

B. Other School Groups

1. In private schools greater emphasis should be given to school health education and the program organized on the sound mental hygiene principles.
2. In parochial schools when the health work is under the control of the city or county health board and is paid for by general taxation the children should have the same rights to health service as those of the public schools.
3. In negro schools the process of education is the only practical means of bringing about permanent child health improvement.
4. Indian schools are in serious need of improved personnel and greatly increased financial support.
5. The migrant school child usually loses about two months of the school year and percentages of retardation increase rapidly until at the age of sixteen it is often 100%.

VII. Teacher Preparation

- A. Since the responsibility for vital phases of the health work of the school rests primarily upon the classroom teacher, it is important that teachers be selected for their own physical and mental health as well as for their training for their responsibilities in the health program.

B. Health in the Normal School Curriculum

1. Every student teacher should have a fundamental course in child development as a background for other courses on special technical information and training in health.

2. It is important that an integrated health program be developed in the demonstration school in order that the student teacher may observe and have experience in the practical operation of such a program.
3. Every student should have a summarized review of health education materials and methods as these apply to elementary school children.
4. Teachers of biological science, human physiology, chemistry, and home economics should have a unit of method work in the teaching of the materials related to health in these fields.
5. Special emphasis should be given to safety education and social hygiene in connection with the training of secondary teachers.
6. There is need of a course in mental hygiene with emphasis on the fundamental methods of childhood adjustments.

C. Health in Normal Schools

1. Health service to normal school students should include:
 - a. A complete health examination.
 - b. Health advice and supervision of students.
 - c. Correction of remedial health defects.
 - d. Maintenance of healthful regimen of living.

D. Organization in Normal Schools

1. The health program in normal schools should be integrated by the appointment in each school of a director who will have general oversight of all health activities.

VIII. School and Home Co-operation

Co-operation between the home and school is vitally important in the health program.

The school must know the relative economic status, the food supply, dietary customs or prejudices and in general the extent to which the home is able to provide the facilities for the factors in the health program recommended by the school.

An important agency in developing a harmonious and understanding relationship between the home and the school is the Parent-Teacher Association.

Probably the most effective means for winning the co-operation of the home is the visiting teacher or school nurse, whose

duty it is to meet in intimate conference the parents of children in need of special observation and help.

A. Need for Parental Education

1. There is need for parental education in all phases of child training:

- a. To understand and appreciate all the school is attempting to do for the child;
- b. To learn to look to the school for guidance;
- c. For an interest in the school throughout the child's school career.

2. Forms of Co-operation

1. Remedial Work

- a. Parents are responsible for remedial work following the health examination.
- b. They should be present at health examinations and be familiar with results.
- c. They should be advised and urged to consult family physician, dentist or other community service available for correction of defects.
- d. When necessary, the school nurse or visiting teacher should explain corrective work to the parent and urge that it be given immediate attention.

2. Social Hygiene

- a. Responsibility for training in social hygiene and sex instruction belongs primarily to parents.
- b. Teachers and principals may give valuable advice to parents in relation to this important phase of child education.
- c. School programs of adult education should include instructions for parents in this as well as other phases of child training.

3. After-school Employment

- a. When after-school employment is required of children to supplement the family income or to secure extra pocket money, this work should be under supervision and regulation; otherwise, it may be detrimental to health.

4. Vocational Guidance

- a. In this field home co-operation should play a major part.

5. Home Study

- a. Where home study is assigned, the school should make very clear to the parents their responsibility in the matter.

6. Mental Hygiene

- a. Personality difficulties of school children have their roots in the home situation and the school is powerless to effect a change without the co-operation of the parents.

IX. Community Co-operation

A. Agencies furthering the school health program.

1. It is essential that the school co-operate with the many agencies that are at work in the community to safeguard the health of children.
2. The school nurse is the natural bond between the health work of the school and the public health work of the community.

B. Summer Vacation Problem

1. While the responsibility for providing a wholesome constructive vacation is primarily the duty of the school, nevertheless, co-operation with community agencies now offering some special contribution to the child's vacation, is essential.

C. Special Agencies Co-operating with Rural Schools

1. In rural communities the school should join with such agencies as the Farm Bureaus, Anti-Tuberculosis Associations, various public health associations, the Red Cross, and child health associations, health sections of women's clubs, fraternal organizations, life insurance companies, and parent-teacher associations, when actively engaging in promoting health.

D. Education of the Public

1. What is particularly needed in order to make the health work in schools effective is an enlightened public opinion. Until the citizens of the country are fully aware of the importance of safeguarding the health of its children the schools will be unable to do the most effective work.

E. Support of the Law

1. It is particularly important that the health work of the schools be kept out of politics and be freed from pressure by private groups or organizations.

X. Legislation

A. Laws directly affecting the health of the school child should:

1. Not only permit, but require the provision of adequate room for physical activities during the school hours and at other times, and insure proper protection in the carrying out of those activities.
2. Provide adequate conditions for healthful living and maximum working.
3. Provide spaces and equipment in school buildings for health service.
4. Require instruction in hygiene with special reference to the effects of alcohol and narcotics.

B. Regarding Health Laws:

1. Legislation should not be too specific.
2. The law should be permissive, providing in enabling acts legal sanction for progressive health programs adapted by local communities.
3. The state department of education should be made responsible for carrying out the provisions of the law. The Departments of Health and Education work together in Massachusetts.
4. The law should provide for state supervision of school health programs.
5. The local board of education should be made responsible for local administration of the law.

1. It is particularly important that the health work of the schools be kept out of politics and in the hands of persons by private groups or organizations.

A. Legislation

A. Laws directly affecting the health of the school child should:

1. Not only permit, but require the provision of adequate room for physical activities during the school hours under strict supervision, and insure proper protection in the carrying out of these activities.
2. Provide adequate conditions for healthful living and maximum working.
3. Provide spaces and equipment in school buildings for health services.
4. Require training in hygiene with special reference to the effects of alcohol and narcotics.

B. Existing Health Laws:

1. Legislation should not be too specific.
2. The law should be permissive, providing in existing state legal action for progressive health progress suggested by local communities.
3. The state department of education should be made responsible for carrying out the provisions of the law. The Department of Health and Education with regard to Massachusetts.
4. The law should provide for state supervision of school health programs.
5. The local board of education should be made responsible for local administration of the law.

CHILD LABOR STANDARDSWHITE HOUSE CONFERENCE and MASSACHUSETTSComparison of Some of the Child Labor Standards Recommended by
the White House Conference with the existing Massachusetts
RequirementsAge Minimum for Employment

White House Conference -- 16 years

Massachusetts -- 14 years

Compulsory School Attendance

White House Conference -- to 16

Massachusetts -- to 14; except in the case of children not
employed.

Child Labor in Agriculture

White House Conference -- included under Child Labor Legislation.

Massachusetts -- not included under Child Labor Legislation for
the most part.

Extra Compensation for Children Injured when Illegally Employed

White House Conference -- recommendation for extra compensation.

Massachusetts -- no specific provision for minors.

Prohibited Employments Revision

White House Conference -- recommendation for continuous study of
hazardous employments, looking toward
revision.

Massachusetts -- no general revision since 1913.

Hours of Labor

White House Conference -- for minor under 18; 8-hour day, 6 day week, 44-hour week.

Massachusetts -- for minors under 18; 9-hour day, 6-day week, 48-hour week. For minors under 16; 8-hour day, 6-day week, 48-hour week.

Physical Examination for Minors Entering Employment

White House Conference -- physical examination by authorized physician. Periodic examinations for working minors under 18.

Massachusetts -- examination by any physician for minors 14 to 16. No provision for examination for minors at work.

Street Trades

White House Conference -- age minimum for street trades 14 years. Application of Child Labor Laws to all street trades for minors between 14 and 16.

Massachusetts -- age minimum - boys - 12 years. Application of Child Labor Laws to specified list of street trades.

Scholarship Funds

White House Conference -- recommendation for the development of scholarship funds to enable children to remain in school who would otherwise be obliged to go to work.

Massachusetts -- no provision.

Note: The recommendations compared here are the principal ones presenting important points of difference.

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